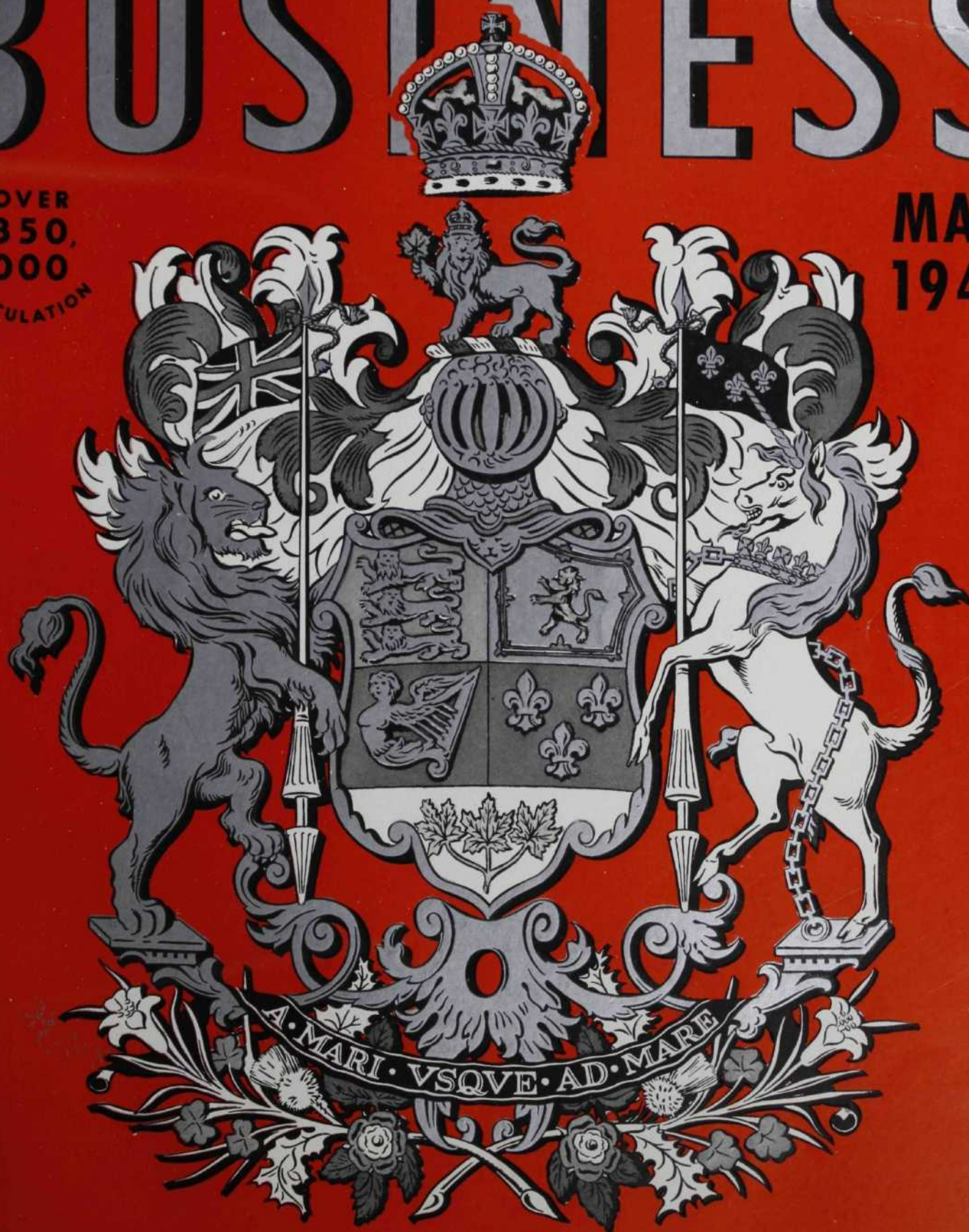


# NATION'S BUSINESS

OVER  
350,  
000  
CIRCULATION

MAY  
1941



Canada... War... and the U. S. A.





## Why are Oscar's oranges fresh?

**BECAUSE THEY'RE RUSHED TO HIM  
WITH THE HELP OF THE TELETYPE**

In getting perishable foods from grower to grocer, speedy communication is of prime importance. That's why many packers, brokers and shippers depend on the teletypewriter.

Businesses of *every* kind depend on Bell System Teletypewriter Service (typing by wire) . . . to unify scattered units . . . flash orders accurately

between office and factory . . . exchange bids and offers in typewritten form . . . to step-up efficiency at distant points.

Perhaps the speed and typewritten accuracy of this modern communication method are proving profitable in *your* business. Perhaps, too, by more strategic use or added installation they can be made to prove even *more* profitable. Surely, it's worth investigating. Why not call a Bell System representative through your local telephone office and talk it over?



**BELL SYSTEM TELETYPEWRITER SERVICE**

How're Your New  
Plymouths on **Gas**  
**Mileage**, Tom?

Great! And Our  
Firm Never Had a  
**Better-Riding** Car!



**TOM:** No foolin', Bill, we came out 'way ahead when we switched to Plymouths!

**BILL:** Is there really so much difference between "All 3" low-priced cars?

**TOM:** A whale of a difference! Plymouth has a longer wheelbase—117 inches—and that means plenty of room. What's more, Plymouth has the most power per pound of car weight of "All 3"!

**BILL:** Yes...but how about prices?

**TOM:** Plymouth is lowest-priced of "All 3" on many models! And that includes those new Safety Rim Wheels!

**BILL:** Sounds great, Tom. I'm going to call the Plymouth dealer myself!



IT'S THE GREATEST PLYMOUTH of all time in performance, handling ease, riding comfort...and it saves you money with its lower cost, higher resale value! You get the important savings of a 6.70 to 1 compression ratio, an Oil Bath Air Cleaner, Oil Filter... many more features that make Plymouth the one *low-priced* car most like *high-priced* cars! *Prices subject to change without notice.* Plymouth Division of Chrysler Corporation.

**Lowest-Priced of "All 3" on Many Models**



CHRYSLER  
CORPORATION'S  
NO. 1 CAR

### GREAT COMMERCIAL CARS, TOO!



**PANEL DELIVERY**—a distinct advertising asset to the company whose name it carries. Passenger-car handling ease for faster deliveries. Big load compartment fully lined.



**HALF-TON PICK-UP**—truck-engineered and truck-built...designed to cut hauling costs. Big 3-man cab for greatest driver comfort and efficiency. Cab and box are rustproofed!



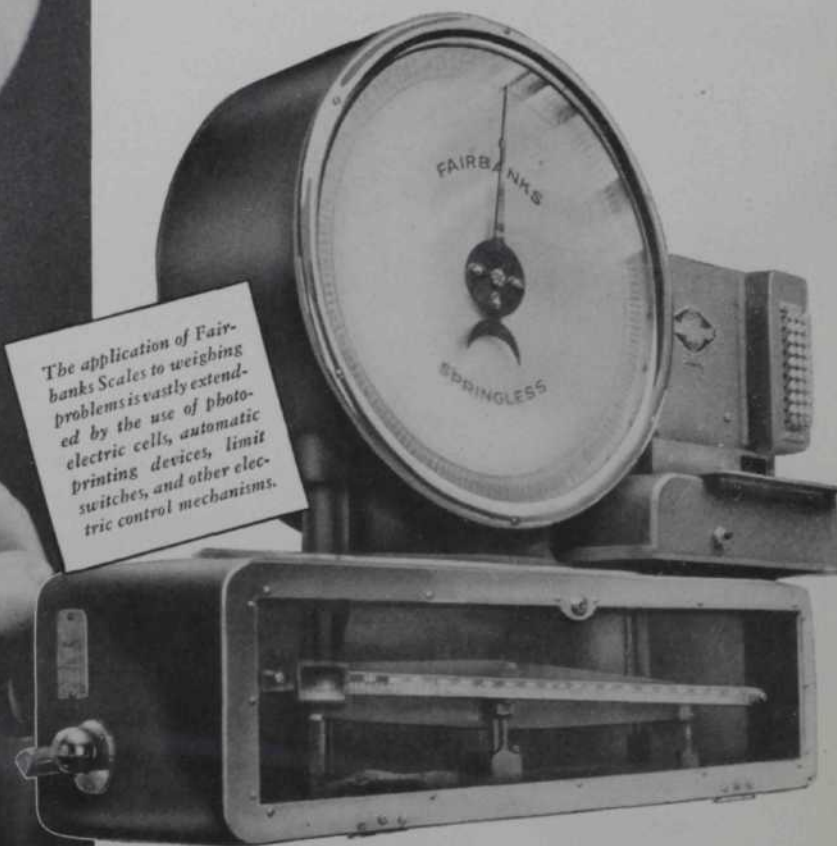
# SCALES That Keep *Secrets*



● Where ingredient proportions are secrets, scales guard confidences by stopping flows automatically when preset weights are reached—*weights known only to the trusted.*

In countless other amazing ways, modern scales aid industry. They *count* small parts and products. They weigh while materials are *on the move*. They *print* records and receipts, *add* weights and record totals, and sometimes perform their bookkeeping *in distant offices.*

It is possible that Fairbanks-Morse Scale engineers could point out unsuspected but profitable applications of modern scales in *your* plant, as they have done in thousands of others. Their knowledge and experience are at your service in solving any weighing problem. Write Fairbanks, Morse & Co., Dept. E56, 600 S. Michigan Ave., Chicago, Ill. Branches and service stations throughout the U. S. and Canada.



The application of Fairbanks Scales to weighing problems is vastly extended by the use of photo-electric cells, automatic printing devices, limit switches, and other electric control mechanisms.

## FAIRBANKS · MORSE SCALES

DIESEL ENGINES ELECTRICAL MACHINERY RAILROAD EQUIPMENT WASHERS-IRONERS STOKERS  
PUMPS MOTORS WATER SYSTEMS FARM EQUIPMENT AIR CONDITIONERS



# It's Something Bigger Than Size



**T**HE United States was once much bigger than it is now—so incomprehensibly vast that only a few hardy adventurers had crossed it. It took railroads to pull this continental wilderness together, to enable it to become the nation we know. No other form of transport is big enough and flexible enough to meet the needs of that nation's present commerce and the demands of defense.

But strength doesn't lie in bigness alone. You can't measure the might of the railroads in the increased horsepower of their locomotives, the length of their track or the number of their cars. For their strength today lies also in organized cooperation—not just

cooperation with each other, but with shippers and the various government departments.

Thirteen regional Shippers Advisory Boards, in close touch with agricultural and business conditions all over the country, let the railroads know in advance when, where and how many freight cars will be needed.

Machinery for effective cooperation among shippers, railroads, steamships and port authorities prevents congestion of export traffic at the ports.

The defense agencies of the government and the railroads working together map the movement of materials and supplies needed for

use by military and naval forces.

Through these cooperative arrangements, cars are used for transportation and not for storage. Freight is not loaded in cars unless it is known that they can be unloaded promptly upon arrival.

This cooperation means better use of our better railroads of today. It multiplies the capacity of the nation's major carriers—for commerce or for defense.

## GRAND CIRCLE TOUR—\$90

See America from Atlantic to Pacific—from north to south—and back to your starting point. \$90 railroad fare in coaches, \$135 if you go Pullman (plus \$45 for one or two passengers in a lower berth). Liberal stopovers for sightseeing.

Ask your local ticket agent about the new Travel on Credit Plan

**"GO NOW—PAY LATER"**

**ASSOCIATION OF AMERICAN RAILROADS, WASHINGTON, D. C.**



# New INTERNATIONAL Trucks



## NEW HEAVY-DUTY POWER, PERFORMANCE, ECONOMY



The new cabs are designed for highway safety, driver-efficiency and driver-comfort. Foam-type rubber seat cushion, adjustable seat back, generous head and leg room. All-steel construction, safety glass all around.

HERE'S a new view of America's favorite\* heavy-duty truck — completely redesigned and geared for the extraordinary demands of 1941. This year, trucks and the highways on which they roll assume a new importance in the nation's No. 1 job — National Defense. The New Internationals are superbly fitted for today's transportation needs.

One look and you see modern streamline styling at its best. Put these new Internationals to work and you get a new idea of *performance, power and stamina—* and *unbelievable operating economy.*

These new K-Line Internationals have new Hi-Tork hydraulic brakes for smooth straight-line stops—no grabbing,

fading or squealing. New, easier steering for greater safety and tireless handling. New, improved frame construction; new, rugged rear axles; and new, longer, easy-riding springs. And powerful, 6-cylinder, valve-in-head engines designed and built by International to lick the toughest jobs.

The new International line includes all sizes from the ½-ton delivery up to powerful 6-wheelers. Write for catalog.

**INTERNATIONAL HARVESTER COMPANY**  
180 North Michigan Avenue Chicago, Illinois

### FREE MOVIE—"SINGING WHEELS"

Thrilling 22-minute feature produced by Motor Truck Committee, Automobile Manufacturers Association. Now ready for club and organization meetings. Write to Harvester.

\* For ten years more heavy-duty Internationals have been sold than any other make



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NATION'S BUSINESS • CHAMBER OF COMMERCE OF THE U. S.

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NATION'S BUSINESS for May, 1941



# STREAMLINING HEADLINES

OUT from the whirling complexity of the modern high-speed printing press — NEWS rushes headlong toward your doorstep.

Here again Texaco helps solve vital problems of speed, accuracy and dependability...through its quality lubricants...complete engineering service...and the convenience of more than 2300 Texaco supply points.

**THE TEXAS COMPANY**

—in all  
48 States





If You Haven't been



Riding the Modern



Air-Conditioned Trains



of the  
**NORFOLK AND WESTERN**  
*... You've Been Missing  
Something*

Relax in one of the deeply cushioned, individually reclining seats on the deluxe coaches of the modern, completely air-conditioned Norfolk and Western passenger trains—operating between the Midwest and the Virginias and Carolinas.

Eat in the cheerful, spotless dining cars. Sleep in the slumber-inviting sleeping cars.

On these fine trains, cares melt away—there's no dirt or soot to soil your clothes; no jolting or swaying, for cars roll swiftly over a smooth, solid roadbed; no crowding, for there's plenty of room to stretch your legs. You arrive rested . . . on time! Go the modern way . . . by train.

**NORFOLK and**  
**WESTERN**  
*Railway*

## THROUGH THE *Editor's Specs*

### Private pump priming

LATELY signs like this appeared on the windows of a number of Washington loan agencies:

Auto tag loans—total cost \$1. Car need not be paid for.

In some of these auto license loans the borrower has four months to pay his \$10 to \$15. Tires may be purchased at one shop for nothing down and 20 weeks to pay—prices \$2.50 and up.

Washington, D. C., is the boom town of the ages. By any test, construction, pay rolls, kilowatt consumption, anything, it is most prosperous. It has, according to the Department of Commerce, three times the *per capita* income of the rest of the nation. Yet, with all this, its citizens have to borrow at loan shops in order to procure their automobile licenses. Perhaps we have been wrong for ten years. Perhaps it is not construction, or a new industry like the automobile, or laws or parity payments or spending, or relief, that brings financial security to the individual. Perhaps there is an ingredient overlooked—the character of the human animal.

### Stretching suspender turnover

IT seems that our advice in the March number on how to sell more "galluses" had been anticipated, and by no less an authority than A. Stein & Co., makers of Paris garters and suspenders. Joseph M. Kraus, general sales manager for the company, writes to remind us that back in 1936 his company started to advertise suspenders with the slogan, "Get several pairs—one for each suit."

On reading Mr. Kraus' letter we made a rapid mental calculation and decided to take our own medicine by buying a second pair.

### Reaping the Whirlwind

DESCRIBING the present wave of strikes and mass picketing, with all the rough stuff the term implies, as only disputes between employees and employers shows a complete failure

to understand what is taking place. No serious disputes over wages and hours have marked these disturbances. They are simply insurrections against the social order, with the N.L.R.B. aiding and abetting violence, and Madam Secretary Perkins fiddling merrily while the fires of class hate rage.

This is the "surging forward" of the masses for which Rex Tugwell sounded the trumpet call in his California speech several years ago.

### Statistics unrefined

SOME of the statistics reeled off by C.I.O. President Philip Murray before the school administrators' convention at Atlantic City are typical of a lot of shallow thinking about business.

In 1940, Murray said, General Motors made a net profit of \$977 per employee; A.T. & T., \$528; Standard Oil of New Jersey, \$2,000, and so on. These statistics are about as valuable as some of those laboriously compiled by the W.P.A. in its most amateurish projects, such as the study of average ages of colored and white, tenant and owner farmers in Tennessee.

Comparisons based on corporate earnings per worker are absurd unless one knows what investments are in relation to number of employees, and what ratio pay roll bears to volume of turnover. Any reasonably sensible clerk knows that. In coal mining, for instance, pay roll cost may run 75 per cent of sales, while in cigarette manufacturing it is about seven per cent.

### Bailing out of Utopia

RESETTLED farmers in Oregon are said to be in revolt against the policies forced on them by Farm Security Administration officials in several projects. Quite a number of them are abandoning their farms, disillusioned by accumulated payments for taxes, rent, maintenance and F.S.A. supervision, including various surprise items. A delegation called on Governor Sprague for help. They claimed that their leases were too short—only from three to six months in many in-





# "Stenotypy in Your Office" . . .

- Here is a booklet which every progressive executive should read. Specially prepared for today's executives—24 pages, illustrated, brief and interesting—with the facts on how to benefit yourself and your office in these important particulars:

1. As a busy executive who can get more accomplished in his crowded days, without being a bit busier!
2. As an executive writing better letters at lower cost. How? By turning out—easier, faster, happier—letters of distinction, perfectly typed. Yes, and more of them per time-period!

Best of all—you get answers to these baffling questions:

How can I cut correspondence costs?

How can I increase office output?

How can I better my dictation performance?

No magic formula, this FREE booklet. But it does go a long way toward being news you haven't found anywhere else.—Next move? Just

Write Dep't 5374-ST for your complimentary copy today!

## The Stenotype Co.

4101 South Michigan Avenue, Chicago, Ill.

The name "Stenotype" on the machine is your assurance of satisfactory service

stances—and some of them had no security of tenure at all.

"Settlers" should be prepared for hardships. Those who hit the Oregon Trail in 1842 had no picnic. And those earlier settlers in the East didn't mind Indians and droughts and storms as much as they did stamp taxes and royal inspectors.

### Those "unelected rulers"

COMMENDATION for J. Gilbert Hill's "Unelected Rulers Shape Our Laws" (March number) comes from D. D. Stewart, manager of Organization Service Bureau of Seattle, Wash. He says:

This trend toward skeleton laws, which in effect delegate legislative power to unelected political appointees, is reaching out into the processes of state legislation. Our own Washington State Legislature is in the last frenzy of its biennial session and innumerable bills have been proposed—some passed—which set up vague general premises and then provide that a department head, an administrator or a commission shall prescribe rules and regulations which will have "the full force and effect of law."

The administrative law experts argue that this procedure is demanded by "the increasing complexity of the modern social order." But who made the social order complex? Those who have been giving the State more and more say-so in the personal affairs of men, until controls have so multiplied that even the process of trial by jury is in the way of becoming antiquated. This "complexity" contention reminds us of Mark Twain's youth who was on trial for killing his father and mother. He pleaded for clemency on the ground that he was an orphan.

### Socialistic millennium

AID to Britain "short of war" is being eased out of the agenda. In its place, "Union Now—With Britain" is edging in. Dorothy Thompson confidently asserts that, if consummated, it will bring 500 years of peace. That's half the millennium at one stroke.

Before we embrace "Union Now," wouldn't it be wise to examine the terms of this marriage contract and take a closer look at the blushing bride? What is it we are being asked to "cherish, honor and support?"

Light on this point is thrown by a recent bulletin of the New York Committee of Federal Union. Answering the question, "How Will Union Affect You?" Dr. Robert McElroy, professor emeritus of American history at Oxford University, writes:

Socialism? Would it lessen your hope of its final establishment to give it a chance to be international? . . . If socialism can come peacefully, its chances would not be lessened by federal union, but made more real.

★  
Stenographers . . .  
Typists . . .  
Secretaries . . .

Ask for your complimentary copy of the companion booklet, "Advantages to You in Stenotypy." You'll find it very worthwhile.

★



What Dr. McElroy says is officially confirmed by the words of Ernest Bevin, Britain's Minister of Labor (Editor's Specs for February). Our own Adolf Berle, Assistant Secretary of State, warns that the millions of men in the United States, Canada and the Latin American nations must not be "turned loose to find their own economic readjustment at their own expense."

"Union now" suggests study now.

### Teach them to work

TWENTY-FIVE out of every 100 farm families not on relief eat meals that are below the safety line in nutriment, according to *Consumers Guide*, a Department of Agriculture publication. The *Guide* regards this as a social problem for Government to solve.

Having had farm experience of our own, we are old-fashioned enough to believe that, except in very unusual circumstances, wherever a farm family lacks sufficient food there's nobody to blame but the farmer and his wife. Notwithstanding maudlin propaganda to the contrary, we've never seen a farm family—owner, tenant or sharecropper—who couldn't raise a vegetable garden and truck patch if they were willing to exert the necessary elbow grease. Producing one's own vegetables, meat and fruit is a primal instinct with all energetic farm folk. But the times are out of joint. "Let Washington Do It" has become our national slogan.

### Last word in a dispute

THE Census Bureau has released figures showing that those able to work and seeking work in March, 1940, totaled 5,100,000, or only about half the number alleged at that time in estimates made by the W.P.A., the C.I.O. and other sources interested in building up the figure. This confirms our assertion (editorial, May, 1940) that the yardstick of what constitutes unemployment has been changed to suit the purposes of alarmists and socialists.

Another straw pointing in the same direction is a report issued by the U. S. Steel Corporation. It reveals that in 1940 the company had one-half per cent more employees on its pay roll than in 1929. Average weekly earnings per worker were four per cent higher and hours of work per week were 21 per cent less than in 1929.

Why is unemployment consistently exaggerated? Because, as Sir Ernest J. P. Benn said in NATION'S BUSINESS of the situation in Great Britain under the Labor administration, it has become a great "vested interest" of

## PREVENTION

is better than . . .

## AUTOPSY

- The best insurance is that which most successfully *wards off* the dangers against which it is written. In no other form of insurance is this fact so well established as in boiler and machinery underwriting.
- It explains why Hartford Steam Boiler expends a very substantial proportion of its premium income toward *preventing* power-equipment failures. And, in turn, the benefits policyholders derive from Hartford's engineering set-up are one of the most important reasons why this Company is chosen to write more power-plant insurance

than is written by any five other underwriters in this exacting field.

• Today's critical need for national defense production makes protection against industrial power-plant accidents more vital than ever before. If your choice is the company which your agent or broker will tell you is the oldest and one of the strongest of its kind in America—a company which specializes exclusively in engineering insurance—you will be the gainer!

• POWER-PLANT INSURANCE BY POWER ENGINEERS!  
— covering Boilers, Steam, Gas and Diesel Engines, Turbines, Pressure Vessels, Electric Equipment.

**THE HARTFORD STEAM BOILER INSPECTION  
AND INSURANCE COMPANY** HARTFORD, CONNECTICUT







Each promises to get you a fish . . . if you select the right one for the right season, the right time of day.

Selecting refrigeration or air conditioning that will do your job to best advantage is an equally delicate matter. Yet it is not so difficult as it might appear . . . if you check over the field for some *plus factor* beyond general competence and reputation.

#### **\$87,204 Investment Pays Out in One Year**

At York, for example, you will find engineers who are trained to the customer's point of view, men whose approach to every problem is based on the age old York premise, "It must profit the user." Take the York refrigeration installation in

the Shell Oil Company's refinery at Deer Park, Texas, as a case in point. Here, performance means more than price . . . yet Shell officials report that this York equipment, amounting to \$87,204.00, paid for itself in a single year!

It is important that you know what that York point-of-view can do for you. A call to "Headquarters" brings to bear on your problem that profit-minded engineering that today, is the distinguishing mark of over 150,000 *engineered* refrigeration and air conditioning installations.

York Ice Machinery Corporation, York, Penna. Branches and distributors throughout the world.



## **YORK REFRIGERATION AND AIR CONDITIONING**

*"Headquarters for Mechanical Cooling Since 1885"*

A FEW OF THE MANY NATIONALLY-KNOWN USERS OF YORK EQUIPMENT—American Air Lines • Armour • B. & O. R. R. • Bethlehem Shipbuilding  
Borden • Canada Dry • Coca-Cola • Curtiss-Wright • du Pont • Eastman Kodak • First National Stores • Firestone • Ford • General  
Baking • General Foods • General Motors • Goodrich • H. L. Green Co. • Montgomery Ward • Pabst Brewing • Pennsylvania R. R.  
Procter & Gamble • Sears Roebuck • Shell Oil • Swift • Texas Company • United Fruit • U. S. Army • U. S. Navy • Woolworth



politics. The bigger unemployment is blown up the more can be obtained in relief appropriations and the greater power accrues to those charged with spending the money.

### History in headlines

THE SLOAN survey finds Christmas retail sales were no better with the Roosevelt Thanksgiving.

Draft examiner in Chicago O.K.'s one-legged conscript, didn't discover his wooden member.

Georgia draft board refuses to induct any more men until defense strikes end.

Gitlow, former Communist, says Reds control half of C.I.O.'s 4,000,000 members.

Ezra Chase, termite exterminator, testifies against Communists at second Bridges deportation hearing.

U. S. induces San Francisco court to free a Russian spy.

Forty-four Russian engineers on Pennsylvania train just ahead of Baden wreck.

German submarine reported by British Ambassador as headed toward U. S.

Argentine professor warns U. S. not to expect aid from his country in European war.

Shabbily genteel man with English accent victimizes New Yorkers, obtains small loans by appeals to sympathy for refugees.

"Jane's All the World's Aircraft" recalled by publisher to delete offending caption to effect that "U. S. have decided to support the war to the last Englishman."

### It happened to France

HATTON W. SUMNERS, Texas Democrat, member of Congress since April, 1913, wise in his analysis of the state of the nation, with a long record of friendship for both labor and industry, warns us of our danger unless we develop a national unity of purpose and action. Recently, speaking on this theme before the Congress, he held members spell-bound long after the time for recess had come. Our leading article this month, a crisp condensation of that appeal, will get quick response from every patriotic American citizen.

### The Mayor has his joke

MAYOR LAGUARDIA of New York City wrote a budget message on April Fool's Day in which he hoped that prudent, economical administration had not become an indictable offense with those holding out their hands to the City.

Curiosity, combined with admiration for such a unique political senti-

ment, sent us posthaste to the detailed budget figures accompanying the message. Imagine our shock to find that, exclusive of education and debt service, His Honor proposes to spend \$358,000,000 next year, compared with \$356,000,000 for the current year.

And yet, let no one say the Mayor has not discovered opportunities to pare New York's bill for government. Next year Grant's tomb will get \$400 less; the *City Record*, \$75 less; the Art Commission is cut \$35.20; and the Municipal Broadcasting System will have to get along with a cut of \$315.62 in a budget of \$118,000.

"City Miscellaneous"—aye, we feared there was a catch in it! That goes up from more than \$7,000,000 to upwards of \$9,000,000, or nearly 25 per cent. Economical administration should not be indictable; we suggest that such claims to it should be.

### Promotion in reverse

NOT long ago the First Lady suggested that people refrain from buying new cars and instead lend their savings to the Government. Since then the automobile industry has enjoyed a big spurt in sales. She also hinted at the time that consumers ought to defer their purchases of aluminum wares. That immediately gave a big boost to department store sales of aluminum utensils. It suggested a shortage to consumers who otherwise never would have thought of it. Now all the smart promotion men would like to see their products on the "My Day" priority list.

### "Aliens first"

A NEW YORK reader writes about a native born tailor in his city whose business was so poor that his wife obtained employment in a garment factory. The union she was required to join assessed her a half-day's pay a week to finance refugees from Europe. Then one day one of these newly arrived refugees opened a rival tailor shop in the same block as her husband's.

Thirty-one out of 43 applications for admission to the New York County Medical Society in a typical month are reported to have been refugees from Nazi-occupied countries.

An American just returned from Europe wrote the New York *Herald-Tribune* that in the U. S. embassies and legations "over there" the rule is "alien refugees first," and if there is any time left, a mere citizen seeking help from his country's representatives may attract attention to his needs.

Once charity began at home. Now it starts half way round the world.

## SELF-SERVICE demands a Self-selling Package



**P**ICTURE your product in this mass of competition, fighting for the buyer's favor. No salesman to say a kind word for it—nothing but the package to catch the eye and clinch the sale.

A tough problem, but it can be solved. In fact, our machines are wrapping numerous products which are succeeding in this kind of competition—from crackers to clothespins.

### Wide Experience to help you

We will be glad to help you step up the sales-power of your package. Our wide experience in serving the majority of America's packaged goods manufacturers gives us a rich fund of experience to draw upon.

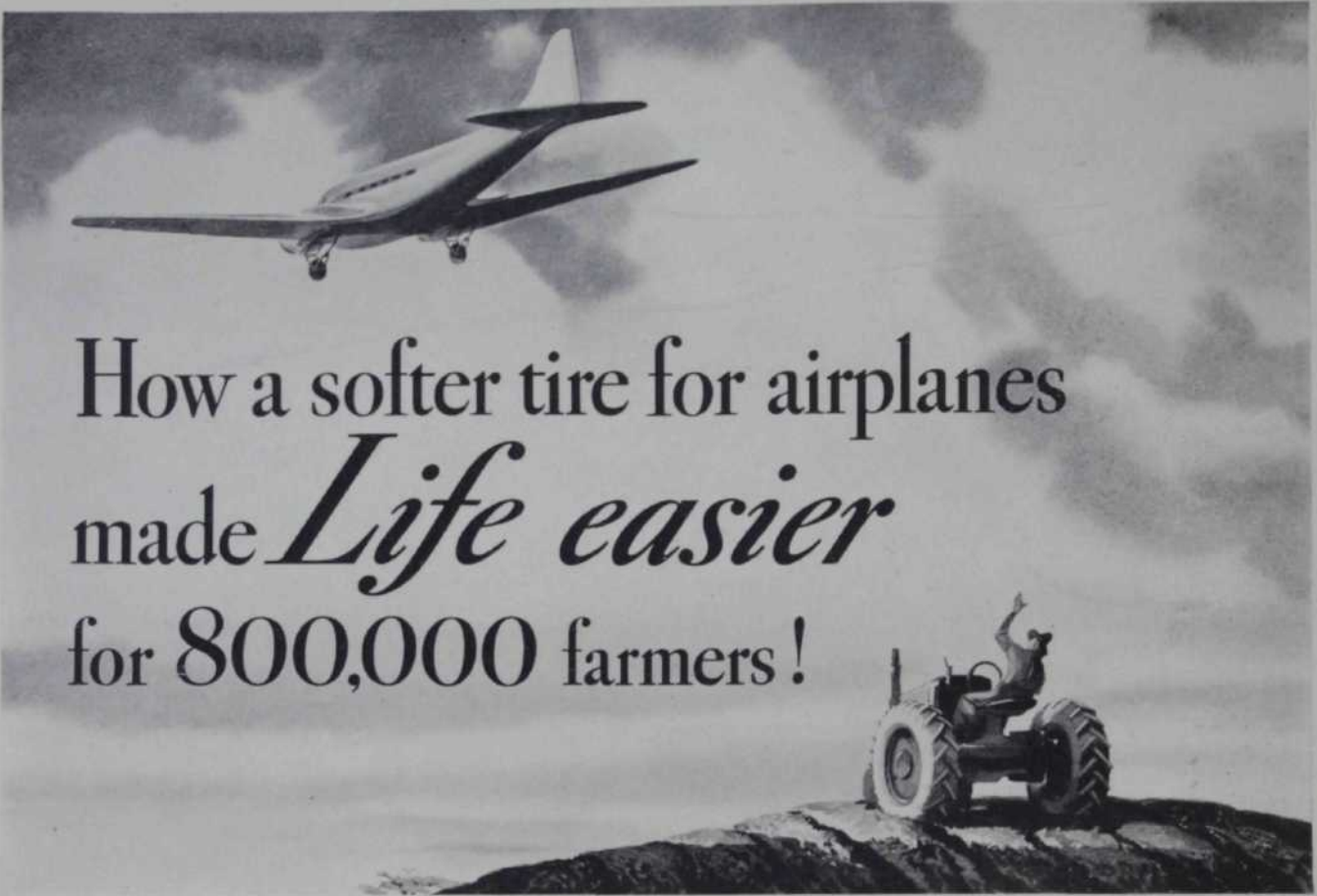
### Modern Methods Save Money, Too

Due to the extreme adjustability and high efficiency of our machines, an outstanding package improvement does not necessarily increase costs; nor does it complicate production methods. In fact, many of our customers have found that a new, improved package is often accompanied by substantial savings in both time and money.

Put your packaging problems  
up to our **PACKAGING CLINIC**

**PACKAGE  
MACHINERY COMPANY**  
Springfield, Massachusetts  
New York Chicago Cleveland Los Angeles Toronto





# How a softer tire for airplanes made *Life easier* for 800,000 farmers!

NOT long ago airplane tires were built like automobile casings, and inflated to the same high pressure.

That was the trouble with them — *they were too hard!* In soft ground they bogged down, causing dangerous ground-loops and nose-overs.

Yet, such accidents are practically unknown on today's giant airplanes, thanks to Goodyear's development of a big fat pillow-like low-pressure tire called the Airwheel.

Too big and buoyant to bog down, Airwheels rolled smoothly and safely over sand, snow and even plowed ground.

It was this ability of Airwheels to negotiate rough ground that gave us the clue to something destined to lighten the lot of farmers the world over!

Like airplanes, farm tractors were then having trouble in soft ground. Their hard steel wheels clogged and churned. For all their

power, they plowed not much faster than a horse.

So back in 1931 we put a tractor on Airwheels — *the world's first pneumatic-tired farm tractor*. It sailed through where steel wheels stalled. We knew we had something, if we could make these airplane-type tires sturdy enough for farm use.

On Goodyear's great 32,000-acre experimental farm in Arizona we developed the Airwheel low-pressure principle into the now-famous Goodyear Sure-Grip tractor tire with its tough, buttressed, open-center tread that pulls through the toughest going.

The rest is history. Farmers were quick to learn tractors would do more work in less time — pull

heavier loads and use less fuel on these specially designed Goodyear tractor tires. They liked their greater comfort, their freedom from spine-jolting thumps.

Today more than 90% of all farm tractors are sold on pneumatic tires, more than 40% of farm implements. And more than 800,000 American farmers now farm on rubber — *because it makes life easier!*

The progressive spirit that saw a modernized agriculture in an airplane tire typifies Goodyear's leadership in making rubber more serviceable to mankind. More than forty years of such enterprise in the public welfare has won for Goodyear "the greatest name in rubber!"

Airwheel—T. M. The Goodyear Tire & Rubber Company





## Defenders Without Benefit of Drums

**T**HE TEMPER of American business as it is reflected in correspondence, calls, and through observation, is this:

America's Number One job is national defense. All out, then—energy and resources, management and men—to attain this objective as quickly, economically and efficiently as possible. The die is cast. There may have been differences of opinion before, there may have been doubts as to motives and methods, but the nation is now committed, and, fair wind or foul, the full effort of the country should be put to the task of building its defenses.

It demands sacrifice, sweat and tears for 130 million souls, yes, even to the baby in today's crib, the man or woman of tomorrow.

Since defense is largely a matter of armament the bulk of the assignment falls necessarily upon industry.

We know of no single instance where business has not responded. Despite forced and unjustified wage increases on the one hand, prices fixed on the other, strikes, priorities, unknown tax liabilities, and confused direction from Washington, industry is today exceeding its output of the 1929 peak.

There is no slacking on the part of management as to the main job.

More important, as increasing supplies roll out factory doors, management is soberly giving thought to the future. What kind of America do we desire when the world regains its senses? What kind of life are we defending?

These questions are being brought into focus as you read this page, through a medium set up by business men themselves. To their own headquarters in Washington, hundreds of delegates representing every community and every form of business and industry will come to exchange views in their search for the answer to "What's ahead for America?"—the theme of the National Chamber's annual meeting. Man-to-man contact

of Oregon's Portland, and Portland, Maine, of Duluth and Danville, of Fort Worth and Fort Pitt, will permit the exchange of experiences, the measuring of methods, that can only be entered as net gain to the defense effort.

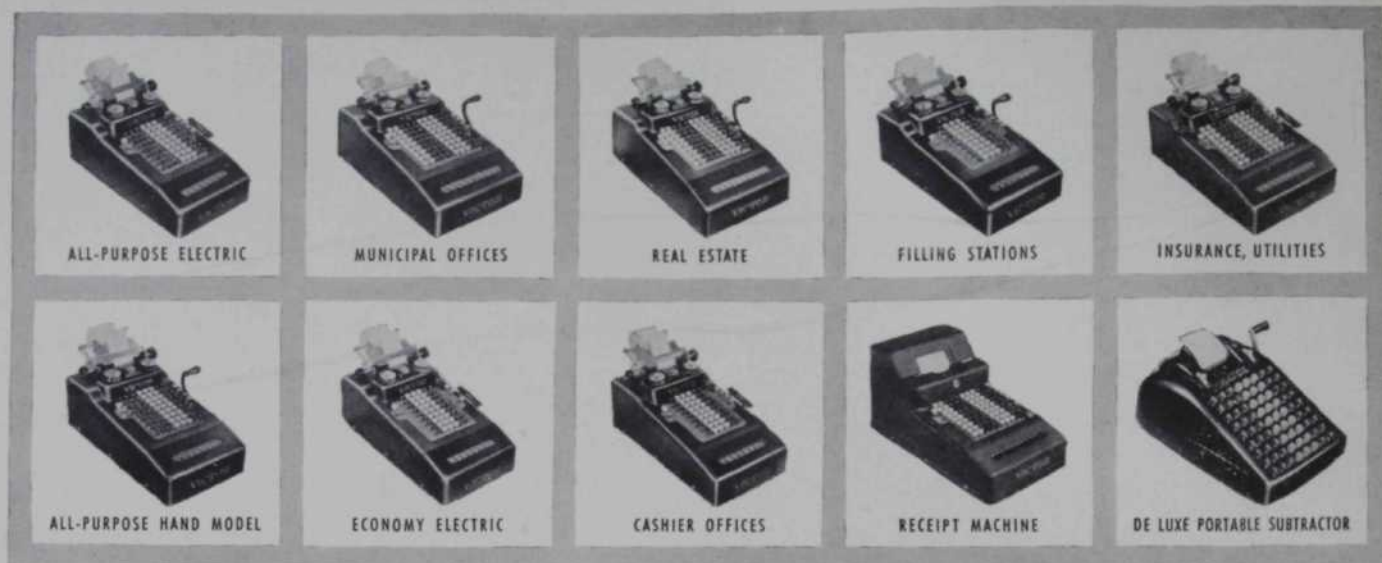
Delegates will find their business associates, some 200 of them, already in Washington enlisted for the duration of the emergency, serving where their training and experience counts most. For them, and governmental spokesmen, they will carry back home to their fellows a better understanding of the defense effort and its problems.

They come as free men to speak their minds freely. As a result, the horsepower developed will have a spiritual quality, the value of which cannot be estimated. They come, because they know, as President Wilson once said, "No man can pretend that except by common counsel he can gather into his consciousness what the varied life of this people is." They bring the thinking and traditions and aspirations of the business communities to "common counsel," and their coming together contributes immeasurably to the comprehension of the national interest.

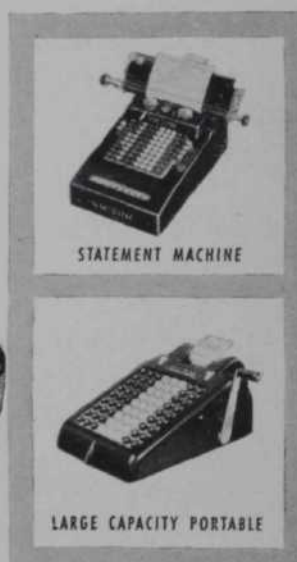
Their text is voluntary action, whole-hearted and real. Well it may be that when history writes the citation of distinguished service in the preservation of this Republic, it will note that many of the solid contributions came from a group, not selfish and sordid, but alert to defend free enterprise. And, as a distinguished writer recently pointed out, free enterprise sired and sustained the other five great basic freedoms: speech, assembly, press, petition and religion. The exercise of these freedoms, at this time, in this way, gives added force to the sage observation of a former President of the United States that when economic freedom goes, there will go with it political freedom.

*Merce Thorne*





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ness and small, is your assurance of Victor value.

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Victor hand-operated types begin at \$72.50; standard electrics at \$114.50; portable "straight" adders at \$47.50; Victor's newest portable subtractor at \$79.50. All economy values and engineering masterpieces that *only* Victor leadership can provide.

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sentative now for a free trial and valuable figure facts. Or write Victor Adding Machine Co., Dept. N-5, 3900 N. Rockwell St., Chicago.



## VICTOR ADDING MACHINES



Frenchmen see their colors dip before the conqueror. A little later they heard Marshal Pétain pronounce this requiem over a lost France: "Our spirit of enjoyment was stronger than our spirit of sacrifice. We wanted to have more than we wanted to give. We tried to spare effort, and met disaster."



MOVIE TONE NEWS

**DANGER:  
Men Not  
at Work!**

**By Hatton W. Sumners**

divide those who may be our active enemies tomorrow—we threaten everybody.

An egotistical people, we have acted as though there will be no shooting unless we shoot first; as though we alone determined the issues of war or peace. But, if the people for whom we are providing munitions fall, or whenever the munitions that we provide make them more hurtful to Germany, does anybody believe that we will not be attacked?

Actually we are at war! We are partisans in the intracontinental wars of the world! Yet shortsightedness, greed, selfishness, ambition and positive disloyalty among only a small per cent of our people imperils the nation and leaves the flower of our manhood inadequately equipped either to protect themselves or defend the country whose uniform they wear.

#### **Sabotage for personal gain**

FRANCE went to pieces inside or it would never have broken before the German shock. America is weak inside or it would never permit strikes to stop production in munition factories when this nation is facing the greatest peril that it has faced since it began to be a nation.

The question is: What shall be done to keep these factories open; who shall

and taken over much of industry, those united people, solidified by the consciousness of a common danger, turned out more instrumentalities to defend themselves in one month than they had done in two and one-half months before that. Men, women and children worked until they dropped in their tracks.

But it was too late!

The United States also has a "Magenot Line"—the Navy. Behind it, we are presuming to say to all the world, "Stay out of this hemisphere." That is a good deal of territory.

We are deep in the internal politics of Europe, deep in the affairs of Asia. We proclaim to the world that we are the arsenal for one of the two warring groups. Whether wisely or unwisely, our strategy has been different from the basic, elementary strategy of military tactics. We have made no effort to

**I**T IS DIFFICULT to realize that, in this country where we come and go as we will, we probably are in almost the identical situation as France when it was depending upon the Maginot Line and its people were divided in their attitude toward national defense. Let us look at that picture for a minute.

France was a great, proud nation. Toward its borders were marching the military forces of Germany. Its own people stopped the wheels of industry which were necessary to provide the machines through which the security of the country might be preserved.

What would the people of France give today if, in those hours of national peril, they had done what they did after the Maginot Line was broken? Former Ambassador to France Bullitt tells us that, even after the Germans had advanced far into France



do it and when shall it be done?

I realize that there has been a wide swing of the pendulum toward labor comparatively recently. In 1928 we were at the other extreme. There was then a general worshipful attitude toward monopoly, toward bigness of things and, as now, an exaltation of personages and of their theories. In addition there came upon the people who, after the World War, had all but ceased to think with their own thinkers, a pestilential swarm of crackpots who had all the answers. They looked wisely, spoke positively, and told the people what they wanted to hear.

Then public opinion shifted. The swing of the pendulum came and carried us to the point where we have had for some time practically a labor government at Washington. I mean exactly that.

As a result, during the time of this swing, labor has been deprived of the necessary restraining influence of Government, essential to the safety of any movement of that magnitude and momentum, and essential to the stability of gain. When the facts of these large movements are examined, it becomes clear that, whenever such a movement gets under way and begins to accumulate momentum, its own momentum, especially if supported by public opinion, gives it all the speed it is safe to have. Speaking generally, the most dangerous thing in such a situation is for it to have government agencies not only fail to apply the brakes, but actually provide an additional stimulus. There is a similarity in such matters everywhere, because a natural law is in control and natural laws are uniform in their application.

Brakes are just as essential everywhere to everything as they are to an automobile. I am pressing this point because of the lesson and warning involved. Instead of preventing the pendulum from swinging too far during the period of which 1928 was a part, the indifference of public opinion, the greed of industry, the exigencies of the next election, and the absence of applied statesmanship, either inside or outside of industry, made the swing-back toward labor certain.

Again we observe the identical influences operating in the reverse direction and we also observe greed for power, hunger for office, absence of applied statesmanship at many important points both inside and outside of labor. I appreciate the difficulties of honest, patriotic labor leaders in responsibility now, but the job has got to be done, and done fairly and quickly.

Labor and capital not only have a common interest in our preparedness, but it is evident that, when this pendulum swings again, as it is beginning to do, it will swing away from both labor and capital as free agencies and will carry us all deep into some form of non-democratic government. I am convinced that the hope of such a result is not the least of the causes for some of these strikes.

### Public opinion will rule

IN such a situation there is but one adequate law, fundamentally speaking, and that is the law of public opinion. It is to public opinion that I appeal now. Ninety per cent determined purpose with only ten per cent law can get results, while 90 per cent law and only ten per cent purpose may cause some deceptive surface disturbances but no fundamental changes. Labor has really been victimized by the fact that it has had no restraint either from within or from public opinion or from Govern-



GENOVESE

ment during this period of a sort of mushroom growth of power.

There is no question anywhere among people who know the facts that the agencies of the Government have been aiding labor in strengthening its organization at a time when labor was already moving under its own momentum plus the impetus given by public opinion as fast as it could safely move. This situation must be dealt with positively and effectively, but fairly and without passion. The tendency is for such a movement to run away from level-headed, conservative, capable leadership which got the movement started and follow a different type of leadership. There is no difference between the human nature of the people who are in the factory and the human nature of the people who are in the offices.

It will aid us in dealing with this sit-

uation if we hold that fact in mind.

It is not meanness. It is the danger which nature associates with too great power. Whether great power rests with a king, a hereditary noble, a church dignitary, a military chieftain, organized labor, organized capital, or with me as an individual, there is an irresistible disposition to abuse it.

Aside from the disloyal element and the racketeer, it is a fact that, just as capital was not able to restrain itself a short time ago, labor has not been able to restrain itself in some of these strike situations, not because workers are meaner, but because, when capital moved this pendulum far from the center, when we were building up in this country an economic feudalism, the men who worked in the factory had no choice except organization or economic peonage. Public opinion shifted its support to labor, politicians shifted their support to labor just as they are going to shift away from labor if labor does not watch its step in this time of world crisis and national peril. It must clean

itself of those who are squandering in a perfect debauch labor's hard-earned support of public opinion. It must help to render powerless those who, because of a foreign allegiance, are now fighting the battles of dictators, in the factories of our country.

### Pendulum swings too far

IT WAS the business of statesmanship to help prevent this wide swing of the pendulum that was to be observed in 1929 but we did not do the job and in a sense unjustly condemned industry. Then the pendulum swung back with the aid of Government, until it has reached a point where, in the midst of the greatest peril of this nation's history, labor

challenges the power of this people to keep industries in operation to equip their boys who have willingly answered the Government's call to arms.

There are in our factories men and women who are patriotic citizens if they could get their feet on the ground; who, if they realized our danger, would tear apart the men who stand between them and a chance to put effective guns into the hands of their sons, upon whose bodies we have put the uniform of this country.

The first thing to do, then, is to tell the American people the absolute truth about our relationship to this world war. A part of that truth is that we certainly will be attacked unless, before that can be arranged, we shall have so progressed in our preparedness as to discourage would-be attack-

(Continued on page 110)



# When the Boss Works Late

By EDWARD S. COWDRICK

**LABOR** gets time and a half for overtime made necessary by "all-out" production. But how about the fellow who puts in equally long hours with nothing to show for it? If you know the answer, you're lucky. Most people don't

**J**OE SMITH works in the machine shop of a factory that is making engines for heavy bombers. His wage rate is a dollar an hour. Until a few months ago, he worked 40 hours a week and earned \$40 or, deducting incidental lost time, about \$2,000 a year. Now the machine shop is working overtime. Joe often works 60 hours a week, with time and a half after 40. This means \$70 a week—almost twice as much as he used to earn. Joe's wife bought a near-mink coat in the January sales, and she expects to have a new refrigerator before warm weather. The children are beginning to make critical comments about the old car.

Joe's foreman is Henry Anderson. Henry is a salaried man, earning \$250 a month. When they were both on a 40-hour week, Henry's earnings were enough higher than Joe's to let everybody know that Joe was the worker and Henry the boss. Henry lived in a better house than Joe, and his children wore better clothes. Now Henry also is working overtime, because he has to be on the job whenever the machine shop operates. He, too, often works 60 hours a week. But he doesn't get time and a half. Instead, his salary is just the same as before. Some months he earns less than Joe does. This makes Henry wonder if he would not be better off if he went back to the bench—or joined a union.

There are many Henrys and Joes in American industry these days. The drive for defense production has halted and reversed the tendency toward shorter hours, which, during the 1930's, made the 40-hour week an almost universal maximum. With the increasing tempo of industry, some factories have put on two or three shifts a day. Others have lengthened the shifts or gone to



EDWARD F.  
WALTON

Henry wonders if he wouldn't be better off if he went back to his bench instead of accepting a foreman's responsibilities





Extra time off Tuesday means little to the secretary who has to break a date with the boy friend who had theater tickets for Friday night



the six or seven day week, so that each man's working hours have been increased up to 48, 54, or even 60 or more a week.

### Workers profit by overtime

WAGE earners generally have not objected to this added toil. On the contrary, most of them think the new schedules are fine. Why? One word gives the answer: Overtime. Under the terms of union contracts or under the requirements of federal and state laws, most industrial wage earners are paid time and a half for all work in excess of 40 hours a week—sometimes for all in excess of eight hours a day regardless of the weekly total. Some contracts

call for double time on Saturdays, Sundays and holidays. In unusual combinations of circumstances, triple or even quadruple pay is possible. Thus, even without increases in stated hourly rates, many workers are earning substantially more by the week, the month, or the year than they used to. Living standards are being adjusted to the new income levels—perhaps forecasting troublesome problems if and when production schedules return to normal.

But there are other workers upon whom the impact of overtime work is decidedly different. These are the "exempt" employees—so called because they are excluded from the coverage of the wage-hour act or the Walsh-Healey Government Contracts Act. The terms

and the interpretations of these two statutes differ in ways which it would be unprofitable to go into here but, in general, each law exempts executives, supervisors (except those designated as "working foremen") and many of the more highly placed white collar employees. These same classes of workers usually are excluded from union contracts.

### A handicap on salaries

IN many organizations these exempt employees are working just as long as the wage earners. Labor can't work alone. It needs supervision, planning, accounting, engineering and technical services. If the shop works after five o'clock or on Saturday, the foreman can't put on his coat and go home. Neither, usually, can the timekeeper, the payroll clerk or the man in the planning department. Indeed, these men sometimes have to work even longer hours than those of the rank and file to keep necessary services, reports, and plans ahead of the production schedule.

Most of these exempt employees are paid weekly or monthly salaries. Rarely are they paid time and a half for extra work. Probably, in most cases, they do not get even "straight time" for additional hours, but receive only their regular salaries, regardless of overtime work.

This apparent partiality toward the wage earner has been going on for a long time. However, until recently it was offset by other advantages enjoyed by the salaried man. He was given an annual vacation, sick leave without loss of pay, time off to attend to personal business, and pay for holidays—privileges which formerly most wage earners did not have. Then, too, the salaried man's security of employment was relatively high. So long as his work was satisfactory, he was unlikely to be laid off except in severe depressions, and he was usually sure of full time work while he was on the payroll. His chances for promotion were considered better than those of the wage earner, and he occupied a superior social position.

But in recent years these differentials in favor of the salaried man have been gradually diminishing. Today many wage earners participate in vacations, sick leave with pay, pay for holidays, and dismissal compensation. In industrial establishments, promotion comes at least as readily to the hourly man as to the salaried employee, especially if the former has some background of technical training. During the depression which began in 1929, many salaried men found that their supposed security of employment was a delusion; that they were about as likely to be laid off as were their wage earning associates. On the financial side, it is



probable that hourly and piece rates have advanced more rapidly than have salaries in the lower brackets. This narrowing of the differentials between salaried employees and wage earners has been an important factor in fostering the growth of unions among foremen, clerical workers and other groups formerly considered distinct from manual labor.

It is natural, therefore, that many exempt employees question the fairness of putting in unlimited overtime without extra compensation, and that many managers are seriously concerned over the whole subject. The problem is particularly acute with respect to supervision since, in the drive for defense production, the foreman has become more than ever an essential man in industry. Indeed, an actual shortage of competent foremen became apparent early in the defense campaign, and many companies were forced to revise and enlarge their facilities for discovering supervisory material and for training foremen and employees selected for promotion to supervisory rank.

### Discrimination among employees?

AT THE same time, the requirements of foremanship have become more exacting because of the many new technical processes involved in defense production, and the critical labor situations frequently arising under the National Labor Relations Act and other statutes. Somewhat the same conditions prevail with respect to professional and other exempt employees. Thus the apparent discrimination against these groups of workers in respect to compensation for overtime coincides with a greater than usual need for their efficiency, loyalty, and morale.

Confronted with this problem, employers have experimented with various solutions. Out of 60 who replied to a recent inquiry on the subject, eight companies reported that they were paying time and a half to some or all classes of exempt employees for overtime work. Five companies were paying straight time, while 16 reported that they were giving equivalent time off. Fourteen companies said overtime work was taken into consideration in fixing salary rates or distributing bonuses. Twenty companies said they had no arrangements for compensating exempt employees for extra hours. (These figures should not be checked against the total of 60 replies, since several companies reported more than one expedient in different plants or departments or applicable to different groups of employees.)

In favor of the practice of paying overtime at premium rates to exempt employees, the principal argument is that it is non-discriminatory; that all employees are treated alike. To this,

the reply is made that different classes of employees should not be treated alike; that supervisors and many other exempt workers really are a part of management, that to pay them overtime causes a loss of status, and that what really should be done is to treat them more nearly like the major executives, few or none of whom receive special compensation for extra work.

Furthermore, it is argued that payment of overtime to exempt employees would be expensive, adding to costs of manufacture and reducing corporation net income. This is another way of saying that, having paid overtime premiums to labor, under pressure from unions or from the Government, the employer can't afford the usually much smaller outlay involved in doing the same thing for employees in the upper brackets. It is a dangerous argument, since it carries a suggestion to the exempt employees to take their case to Congress or to the unions.

Payment of straight time for extra hours of work does not differ greatly in principle from payment at overtime rates. It is less costly and, at the same time, less profitable to the employee. It goes part way toward identical treatment of wage earners and exempt employees, without providing any very

*(Continued on page 114)*

**Workers on straight salaries sometimes work even longer hours than those of the rank and file**





# Indiana Plays Guinea Pig for

By RALPH F. ARMSTRONG

**T**OTALITARIAN nations are sticking big, futile, red pins these days on the map of southern Indiana. Here the du Ponts and the War Department are jointly building the biggest smokeless powder plant in the world. The spot was chosen because it is probably the safest place in the United States—difficult to bomb from above or to bore from within.

Smokeless powder will pour out of the sleepy, Hoosier hills at the rate of 600,000 pounds a day. Ironically, the plant is at Charlestown, Ind., a village so drowsy that, until defense officials stuck their own red pin on it, it had heard scarcely a firecracker pop in 100 years. Four other titanic munitions plants, to bag, process, store and test its output, are turning the region, bounded on the southeast by the Ohio River and on the west by the Wabash, into a vast arsenal. This defense boom is modernizing a countryside that had changed little since the heyday of the river boat.

The Indiana Ordnance Works, official name for the powder plant, is the first of the big inland defense units to get under way. This makes it and Charlestown a laboratory experiment in the many questions of defense, from how fast basic production can get going to what happens when a boom alights on a bewildered countryside.

The plant offers an optimistic answer to the first question. The Government is paying \$74,000,000 for it, but it is being built and is to be operated by du Pont. Builders say it represents the swiftest engineering work ever seen anywhere. The first two production lines are already finished, months ahead of schedule.

The details of building are military secrets and military rule reigns over the whole 5,000 acres. A wire fence, 14 miles around and seven feet high, topped with Y-shaped barbed wire, plus armed guards at all gates, assures secrecy. Visitors are unwelcome. Workmen are not supposed to talk, and officials have given out only a few details:

Since the land was first bought, 33 miles of railroad have been laid within the grounds and work finished or almost so on 450 production buildings. The units are scattered and to be operated



Streets and sidewalks were not made to handle the crowds that throng them

by remote control, so that any explosion will do small damage and cause few deaths. Much building is being done underground, so deep that the men use canary birds in excavations to warn of gas. Two water mains and two power houses, widely separated, carry the water supply. The construction is considered so impregnable that even the heaviest bombing could cause little damage.

## Too many people for the town

AT its peak, with construction and powder making going on simultaneously, the plant will employ 20,000 workers. Later this will simmer down

to 10,000 ammunition makers, and, when necessity ends, there will be only a skeleton maintenance force. Meantime some 15,000 men daily pour in and out of the plant.

Half a mile away, via a railroad overpass that makes a traffic bottleneck, Charlestown plays befuddled host to this army.

As an example of what happens when a defense boom hits a town, take Charlestown. In fact, Charlestown is begging somebody to take it, preferably the Government. If it is declared a national defense area, the W.P.A. must attend to housing, sanitary facilities and 100 other necessary improvements, without the usual contribution of 25



# A War Boom

ALL OF THE drama isn't in shooting the cannons. Much of it is in making them, as Charlestown, Ind., found out when it unexpectedly fell heir to a \$74,000,000 plant employing 15,000 men—all dedicated to national defense. A picture of a section that is doing its bit for preparedness in ways Congress never thought of



W.P.A. rushes work on a sewer system, built structures like this to help sanitary conditions



Trailer camps have sprung up to meet the housing shortage, adding sanitary problems to the many others the town faces. Parking space for a trailer is usually about \$1.50 a week

ALL PHOTOS BY HAROLD RHODENBAUGH



per cent from the town. Charlestown does not have the 25 per cent, or any part of it, or any chance of getting it this side of 1942 taxes.

The start of Charlestown's present fuddle dates back to the Spanish-American War. The Rough Riders, using black powder, found themselves at a disadvantage before Spaniards using smokeless powder that did not reveal their positions.

Since then such powder has become the chief explosive used as a propellant

railroads, roads and rivers for transportation; the natural gas boom of the '80's set factories belching smoke through the central and northern part of the state, to turn out everything from the first automobiles to harvester machines. The gas boom ended, but not the factories or the skilled labor.

And it is native born labor, inoculated against isms. Indiana has less than six per cent of foreign born inhabitants.

Ex-Governor M. Clifford Townsend, in his farewell address, pointed to

peaceful relations between labor and industry as a reason why Indiana has received almost \$900,000,000 in defense orders.

War Department officials saw, too, that plenty of raw material was available: steel, iron, coal and plain water.

Moreover, insofar as any district can be safe in modern warfare, Indiana is. Ft. Knox, Ky., a few miles south of the new munitions sites, was considered secure enough to hold the nation's gold.

### Buying up the countryside

FOR these reasons, the masters of defense gobbled up southern Indiana by the 60,000-acre mouthful.

They began at Charlestown, about 15 miles up the Ohio river from Louisville. Charlestown is a town where something happens every 50 years, rarely oftener. In 1778, George Rogers Clark set out to take Vincennes, from Corn Island, 15 miles south of the site of the town. In 1810, Jonathan Jennings, first governor of Indiana, got married there. In 1878, Charlestown lost the county seat of Clark County, to Jeffersonville, a larger river town. Nothing much occurred after that, so talk of Jeffersonville's political trickery has remained a topic for 60 years. When Charlestown took in flood refugees from Jeffersonville a few years ago, a lot of folks spoke smugly about

*(Continued on page 126)*



The bank handles a \$75,000 pay roll weekly. On pay days the workers almost block the street

for ammunition of all sizes. During the first World War it was produced largely by private corporations. After the war, production dropped to virtually none, save that used for target practice or hunting.

With the need for defense and of help to England, officials rated shortage of explosives as a major weakness. It was to remedy this that du Pont and the War Department set to work at top speed, in January, 1940, months before most people had thought about defense. They picked Charlestown specifically because there are plenty of



Even parking space for workers' automobiles is at a premium. Old residents are annoyed but helpless. They didn't want a boom



What happens to an economic yardstick, developed in peacetime, when it meets up with a wartime economy?



GEORGE LOHR

# Drawing Charts in the Dark

By JOHN W. SCOVILLE

**C**AN WE permanently blueprint industry for a predetermined volume of production? Can we put our workers on a fixed quota basis—so many to this industry, so many to that? Can we crystallize the active differences in buyers' tastes and desires to the point where the kinds of goods bought in previous years will be a reliable guide to the goods that the public will demand in some future year?

When a nation is at war, or is building huge armaments against the possibility of war, a considerable dislocation in business and in consumption is almost inevitable. In certain fields of economic activity, the Government, in

**SUPPOSE** government experts had tried economic planning in 1900. Could they have foreseen the automobile, radio, airplanes, air conditioning? Can today's "experts" do better?

the interest of public safety, exercises more or less control. Questions then arise as to the extent to which these controls are exercised in the interest of public safety, the skill with which the economic activities are manipulated and, unfortunately, sometimes whether or not some of the steps taken may be dictated more by political than military considerations. Similar sequences of events have been responsible

for political upheavals in other countries, and there are those in this country who might well take advantage of the social and economic strains generated by our defense program to further their own revolutionary ideas.

The enlarged activity due to our defense work will produce the illusion of greater prosperity. Cannons and bombs, though vital today, are not harbingers of prosperity. All good citizens





Government prognostications show that increased income will mean four autos per family, but little fuel to run them

will need to study the probable demands of our defense industries to determine which parts of our economy should contract and which parts should expand. But we must not be fooled into thinking that when, in peace times, we have a national income of a certain amount, that an equal national income when we were at war or preparing for war, would show the production of similar goods or give an equally high standard of living. A wartime economy cannot be measured with a peacetime yardstick.

### We all want more income

IN a message to Congress on April 14, 1938, President Roosevelt voiced the universal desire for greater prosperity and business activity by saying:

I do not set \$80,000,000,000 as the national income goal. It ought to rise in the next decade to more than \$100,000,000,000.

I do not suppose that the President meant that the national income should rise to \$100,000,000,000 or more and then sag back to a lower figure. The aim is undoubtedly to get the national income up to \$100,000,000,000 or more and keep it there.

How the possibilities shape up in the light of official thinking is revealed in a bulky two-volume report confidentially issued in February, 1938, to a few economists and statisticians by the National Resources Committee under the title "Patterns of Resource Use." In March, 1939, a revised version titled "Preliminary Edition for Technical Criticism" was made generally available through the office of the Superintendent of Documents in Washington. For the sake of brevity I shall call it "Patterns."

Just by way of testing the conclusions, let us see what the \$100,000,000,000 goal means in terms of the automobile industry.

If the desired figure were attained, according to "Patterns," we learn that automobile output would be nearly 13,000,000 vehicles a year. What does that total signify?

Since the average life of an automobile is about nine years, this would give us in a few years about 117,000,000 automobiles in use, or nearly four to a family. But we learn on p. 27 of "Patterns" that, when the national income is \$100,000,000,000, gasoline consumption will be 902,000,000 barrels. We

also learn on p. 27, that in 1935, when about 24,000,000 automobiles were in use, gasoline consumption was 433,000,000 barrels, or about 18 barrels per car.

So, when we have 117,000,000 automobiles in use we will need about 2,106,000,000 barrels of gasoline. But "Patterns" provides for only 902,000,000 barrels. We must drive each of our four cars only about 3,500 miles a year or else the cars must be redesigned to go about 42 miles on a gallon of gas. Perhaps the industrial committee contemplates the dilution of the gasoline with alcohol or some other fuel or perhaps the steam car can be revived and equipped with a boiler for burning coal.

### Figures don't lie, but—

LET us examine this further:

On p. 27, we learn that, in 1935, 433,000,000 barrels of gasoline were consumed from an output of 966,000,000 barrels of crude. At this rate, when the consumer income is \$100,000,000,000, it would require an output of 2,012,000,000 barrels of crude to produce the allotted 902,000,000 barrels of gasoline. But "Patterns" allows for an output of only 1,705,000,000 barrels of crude.

But, while "Patterns," at the \$100,000,000,000 income level, allows for 76 per cent more crude than was consumed in 1935, it indicates that the number of new wells drilled will be increased by only 56 per cent.

So it looks as if there will still be trouble in the world when we reach the \$100,000,000,000 goal. Then we will not make enough gasoline to propel the automobiles, we will not produce enough crude oil to make the gasoline, and we will not drill enough wells to get the crude! When we arrive at the \$100,000,000,000 goal, we will consume 49 per cent more bread and bakery products than in 1935, but we will turn out only one per cent more flour, according to "Patterns." While we will have about five times as many trucks in use as in 1935, only 44 per cent more persons will be employed in driving them.

As the national income advances from \$50,000,000,000 to \$100,000,000,000, we are to consume 37 per cent more butter, 27 per cent more meat, seven per cent more flour, 77 per cent more canned goods, 52 per cent more tobacco, and 108 per cent more cotton textiles, but the number of farmers will not change. Whatever the national income may be, we will always have exactly 10,100,000 farmers. And, while these farmers are going to raise more food for us to eat and more cotton for us to wear, "Patterns" says they are not going to use more fertilizer. No matter how much they raise, they will



put just 71,000,000 tons of fertilizer on the land each year.

Further, "Patterns" claims that, when we reach an income of \$100,000,000,000, we must wear more silk underwear instead of rayon because, while the consumption of silk and rayon combined will increase by 137 per cent, the consumption of rayon alone will not change at all, and will always be 372,000,000 pounds. In other words, the rayon industry will be immune to booms and depressions.

Although experience teaches us that the trend of federal employment is always upward, "Patterns" indicates that, no matter how high we go in income, we will always have exactly 940,000 federal employees.

It seems to me that there must be some basic fallacy in a survey that yields such fantastic results. I will now discuss the fundamental error that makes the findings in "Patterns" unreliable.

Let us approach the problem of determining how many passenger cars would be bought in a year if the na-

tional income should be increased to \$100,000,000,000.

Suppose that the 10,000,000 unemployed obtained work and earned \$1,000 a year. That would increase consumer income from \$60,000,000,000 to \$70,000,000,000. Then suppose that each of the 30,000,000 families obtained an increase in income amounting to \$1,000 a year. That would bring the total income up to \$100,000,000,000. Then the bulk of the families would have annual incomes of \$2,000 to \$3,500 a year. They would presumably buy automobiles in the same quantities as the families who now receive incomes of \$2,000 to \$3,500. But most of the families who now have incomes of \$3,000 to \$3,500 own only one passenger car, a small percentage own two.

### Too many automobiles forecast?

BY this line of reasoning, we conclude that, if the national income should reach \$100,000,000,000 a year, we would have about 40,000,000 passenger cars in use. Since these cars last about nine

years, this would require an annual output of about 4,500,000 a year and not 10,350,000 as given in "Patterns."

There are certain economic activities that are intermittent and that reach a peak in certain days, weeks, months, or years. For example, the housewife washes her clothes on Monday and does little or no washing on the other days of the week. The merchant sells more goods in December than in any other month. Other economic activities fluctuate in periods measured by years.

Nineteen hundred and twenty-nine was a year when many people bought automobiles. One reason why they bought so few in 1932 was because they bought so many in 1929. One reason why they bought so many in 1936 and 1937 was because they bought so few in 1932 and 1933. But we cannot assume that the economic peak is the norm, and that the housewife should do as much washing every day as she does on Monday, or that the merchant can sell as much every month as he does in December, or that the people can buy

*(Continued on page 132)*



Nobody can project into the future economic trends based on records of the past and say with assurance what people would buy if they had a greater income with which to buy it



## Swapping Air-planes for Rubber

**I**T MAY come as a surprise to readers to learn that United States export and import trade reached the highest peak in a decade last year.

Ever since Colonial days when naval stores, cotton and tobacco were exchanged for finished goods from Europe, foreign trade has been an essential part of U. S. commerce.

National Foreign Trade Week is sponsored annually by the U. S. Chamber of Commerce as an appropriate time to direct public attention toward the need for export business and the equally existent demand for such products as raw rubber, tin, coffee, bananas and other products not produced within our own borders.

The 1941 Week will be May 18 to 24. Observance is regularly the week in which May 22, "National Maritime Day," falls. Propeller Club of United States sponsors this "Day" which was designated by Congress to commemorate the sailing of the steamship "Savannah" in May, 1819, when it set out on the first trans-Atlantic round trip by a steam-propelled vessel.

Current interest centers around export of war materials to Great Britain and her allies and import of strategic and critical materials for national defense. Instead of automobiles and cotton which generally head export figures, the leaders are now aircraft, machinery, steel, arms and ammunition.

*(Continued on page 111)*



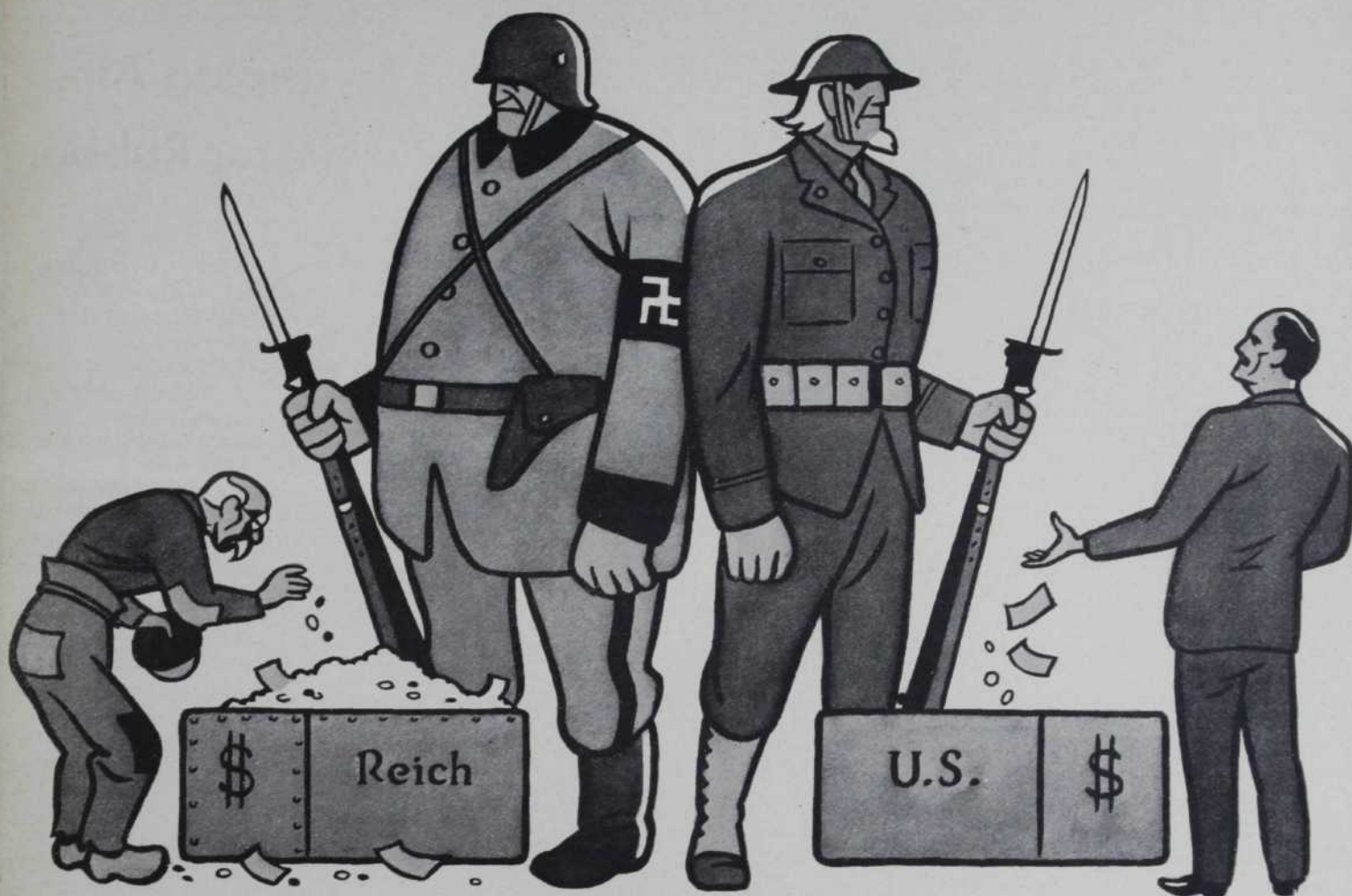
NEW YORK HERALD TRIBUNE

Thousands of workmen changing shifts at the Federal Shipbuilding Co. yards where naval and merchant ships are being turned out at a speed never before equaled. Some of the new ships may soon be used for transporting rubber, shown at right, on its way to the dock through the streets of Singapore



EWING GALLOWAY





# Mars Has a Hand in Your Pocket

By WILLFORD I. KING

**I**F, IN A. D. 41—1900 years ago—Emperor Caligula of Rome had started a mint, and if the mint had continuously stamped out \$100 every minute day and night until today, the total coined would be about \$100,000,000,000.

That gives some idea of the size of the sum which, experts estimate, our defense program will cost. That estimate is optimistic. It is based upon expenditures in the World War when direct costs were about \$20,000,000,000 a year. Battleships, tanks and planes are far more expensive today than they were then.

It is also based on the assumption that England will be able to stay in the war. If England falls and if the United States is forced to defend the Western Hemisphere, or even North America, alone, for perhaps a score of years the burden is almost certain to exceed \$100,000,000,000.

**AND HE's going to take out plenty.**

**What you have left may depend on you.**

**There is a way to have preparedness without either personal or national bankruptcy**

This brings up the interesting question: "How can a nation which, for a decade, has been unable to balance its peacetime budget, pay out this sum for armament?" The question is largely academic. We have set our shoulders to the wheel and it is now too late to turn back. So we are going to spend it, and we can make up our minds that the expenditure will involve much sacrifice by many people. Fortunately, however, if we analyze the problem carefully and deal with it rationally, we can greatly lessen the real hardships involved. Let us, therefore, reduce the problem to its simplest terms.

It is essential that we keep constantly in mind the goal sought—to win the war as early as possible. Only by achieving victory can we hope to end the expense. Only by producing and spending freely now can we hope to avoid heavy loss of life later. If we can over-

whelm the enemy with planes, tanks, and destroyers, we may not need to sacrifice many men.

We must remember, too, that every dollar of taxes and loans must come out of the wealth and income of the people. No other source is available. At present, all the people of the nation, after meeting the cost of government, have left a total money income of something like \$62,000,000,000. What would happen if we sliced \$20,000,000,000 a year out of that aggregate? Could we live on the remaining \$42,000,000,000? The answer is that we certainly could. Even if we cut our present scale of living by



32 per cent, our sacrifices would be trivial as compared to those of the German people.

It is estimated that, in the past seven years, Germany has spent the equivalent of \$100,000,000,000 in getting ready to conquer the world. Yet the average *per capita* income of the German people is little more than one-third as large as that in the United States; and the United States is much more populous than Germany. Surely, if a poor nation like Germany has accomplished such results, it should be relatively easy for the United States to do so.

### Turning back 50 years

HOWEVER, in getting ready for war, the Germans sacrificed not only luxuries but many things which we consider absolute necessities. Still, if we are not willing to give up for the defense of freedom a fraction of what they have given up for the destruction of freedom, we probably do not deserve to continue to exist as a nation.

One way to visualize what a cut of 32 per cent in our scale of living would

mean is to imagine that we have turned back the hands of time to the year 1891. At that time, *per capita* income, in terms of command over everyday necessities, was probably just about 68 per cent of what it is now.

Some of us can remember that people really did enjoy life in those days. In fact, even then, American prosperity drew millions of immigrants to our shores. Today, the United States is still so prosperous that the typical American family spends the major portion of its income on things which, in most other lands, would be regarded as luxuries. Under such circumstances, it is clear that the average family can turn over a large proportion of its income to defense and still have wholesome food and ample protection against the elements.

A factor which today makes it easier for us to meet heavy taxation is our accumulated wealth. Most of our homes will need little repair for four or five years. Most of our automobiles and house furnishings will last for several years. Many of us could survive for a long time even if we bought little new clothing. Clearly, though, to cut *per capita* income 32 per cent would mean hard sledding for some of us. Even in this rich nation, several millions of families are living on the ragged edge. It is essential that our defense program shall not cause this group to suffer from under-nourishment.

From what has been said, it seems clear that there are two fundamentals in our armament program:

1. To arm fast enough to win the war promptly.

it is possible to raise \$20,000,000,000 annually for war expenses without cutting down our living expenditures by anything like 32 per cent.

Three ways of avoiding this are open to us:

1. We can reduce governmental expenditures for peacetime purposes.
2. We can set to work the millions who have been idling away their time.
3. Those of us who have been working can work a bit harder.

Let us consider these possibilities.

With the war industries booming, there is no legitimate reason why our national, state, and local governments should not lop off more than \$2,000,000,000 in expenditures for relief or work-making programs. By stopping the construction on non-emergency improvements and curtailing luxury services, it should be possible to increase budget cuts to \$3,000,000,000. If we need to spend \$20,000,000,000 a year for defense, this would reduce to \$17,000,000,000 the net amount of additional governmental financing required.

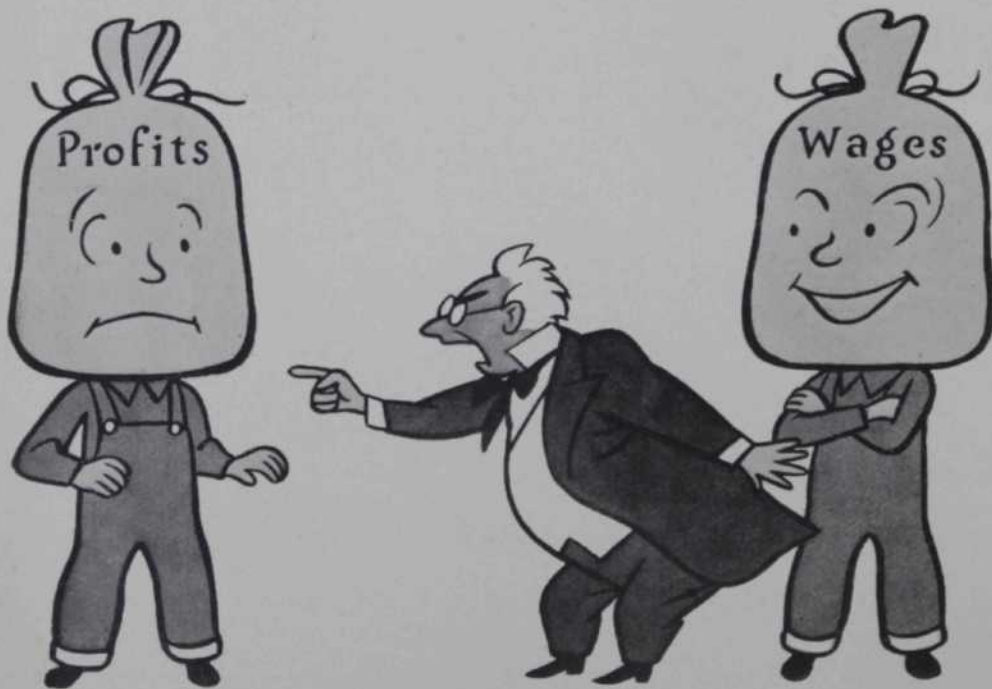
### Work more for more income

ACCORDING to the National Industrial Conference Board, 6,652,000 persons are still idle. Were we to insist that they take the places of men called into the Army, the Navy, or defense industries, the value of their services would probably increase the national income by at least \$5,000,000,000. This estimate is based upon the assumption that they would average but \$750 each a year.

If we assume that \$2,000,000,000 of this amount has already been counted once in the assumed reduction in the cost of public relief, we still have a net gain of \$3,000,000,000 resulting from production by those now idle. This amount, coupled with the \$3,000,000,000 which government could easily save, makes a \$6,000,000,000 dent in our \$20,000,000,000 armament problem.

Moreover, we still have the third method of financing to consider—that of producing more by working harder. At present, at least 20,000,000 employees are presumably putting in not more than 40 hours a week. By lengthening their hours to 48 (the “short week” sought by labor for many years as an ideal goal), another \$4,000,000,000 could be added to the national income. With factories active, and demand for farm products strong, it seems probable that incomes of farmers, business, and professional men would increase by at least \$4,000,000,000. It appears then that, by hard work, but with no undue strain, we could produce an additional \$8,000,000,000 to add to our national income.

Possible gains from governmental  
(Continued on page 120)



Note that those who are so eager to take the profits out of war have never advanced the slogan: "Take the wages out of war"

mean is to imagine that we have turned back the hands of time to the year 1891. At that time, *per capita* income, in terms of command over everyday necessities, was probably just about 68 per cent of what it is now.

Some of us can remember that people really did enjoy life in those days. In fact, even then, American prosperity drew millions of immigrants to our shores. Today, the United States is still so prosperous that the typical Amer-

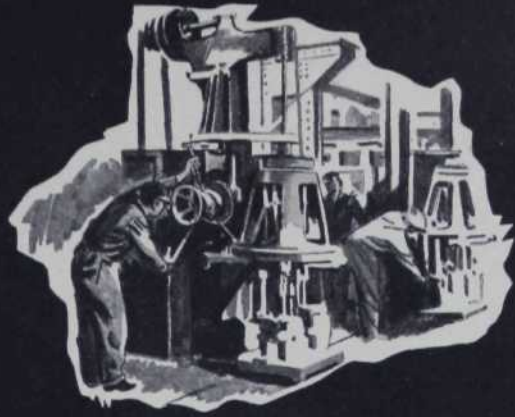
ican family spends the major portion of its income on things which, in most other lands, would be regarded as luxuries. Under such circumstances, it is clear that the average family can turn over a large proportion of its income to defense and still have wholesome food and ample protection against the elements.

In addition, it is ultra-important that, in accomplishing these results, we do not sacrifice our liberties and find that, at the end of the war, we have an America where the individual is the servant of the state instead of the master of his own destiny.

Fortunately, it seems entirely feasible for us to attain these two goals without sacrificing our liberties. First,



# Today's Production



**requires up-to-the-minute**



# Control Figures

As the nation quickens its production, fewer minutes can be spared in obtaining statistics upon which to base vital decisions . . . fewer minutes can be wasted tracing stock and parts . . . fewer minutes can be used up in looking for clerical errors in budgets, specifications, estimates and commitments.

Today's Burroughs machines provide essential records and prompt control figures in less time, with less effort, and at less cost.

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**Burroughs**

DOES THE WORK IN LESS TIME • WITH LESS EFFORT • AT LESS COST



The Diesel does away with spark plugs, wires and coils—uses a fuel pump in place of a carburetor



PHOTOS BY PAUL DORSEY

# The Diesel Comes Down the Road

By VERNON E. BRINK

**THE engine which has already shown its capacity as a change-maker in motor boats and railroads turns its magic to highways**

**SO QUIETLY** that most persons not intimately connected with highway transportation have not been aware of it, the Diesel engine has been coming down the road.

That statement is literal as well as figurative. Five years ago Diesel engines on the nation's highways could be numbered in the hundreds; today 7,500 is a conservative estimate. Annual production of Diesels by an estimated 35 manufacturers of high-speed, light-weight oil engines has jumped from 30 in 1932 to more than 2,500 in 1940. Last year's output was 50 per cent greater than that of 1939 which in turn was 25 per cent greater than 1938.

Although this increase presages no immediate change in the habit of using gaso-



Some states have levied a license fee and others collect a gallonage fuel tax on Diesel trucks, but no state does both. There is no federal tax on Diesel fuel



## We, too, are great believers in turning over stones

ONCE when Euripides, the Greek tragic dramatist, was asked what was the best way to hunt for buried treasure, he replied: "Leave no stone unturned!"



*The neighborhood is studied*

We try to follow this wise advice in our search for safe, sound investments.

For safety must always be the first consideration when the money entrusted to the Company by its policyholders is put to work to earn the interest that helps pay the cost of your life insurance. Therefore, when Metropolitan invests in first mortgages on real estate, it tries to "leave no stone unturned" in its efforts to



*Transportation facilities are analyzed*

learn all there is to know about the property to be mortgaged.

When the necessary information has been assembled, it is analyzed by

Metropolitan's own mortgage loan experts.

Applications for loans on city real estate come to Metropolitan from real estate owners and their agents or brokers, as well as from the Company's 73 active loan correspondents, and many sub-correspondents, in all parts of the United States.

Whether the property is a private home, an apartment house, or a business building, Metropolitan must determine the suitability of the property, the physical condition of its



*Details of construction are checked*

improvements, the character and future of the neighborhood, its transportation facilities, and the reputation and financial responsibility of the owner.

In the case of a private home or apartment house, Metropolitan also wants to know about the nearness of schools and shopping districts.

If the property is a business building, its location must be suitable to the nature of the business to which the building is devoted. The integrity and efficiency of the management must be taken into account. Details of architecture and construction and the condition of the property are checked by Metropolitan's own staff to determine whether it will attract tenants at adequate rentals.

And before any mortgage loan is

made, on any type of property, it must meet the requirements of the Company's investment policies, and be recommended by Metropolitan's investment men. Their recommendations must then be approved by the



*Location of schools is important*

Real Estate Committee of Metropolitan's Board of Directors.

Life insurance funds invested in first mortgages on real estate play an important part in our economic and social structure by helping business to carry on or expand, and people to own their own homes. At the same time, the funds so invested earn the interest that helps reduce the cost of your life insurance.

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—METROPOLITAN LIFE INSURANCE CO.

*This is Number 37 in a series of advertisements designed to give the public a clearer understanding of how a life insurance company operates. Copies of preceding advertisements in this series will be mailed upon request.*

**Metropolitan Life  
Insurance Company**  
(A MUTUAL COMPANY)

Frederick H. Ecker,  
CHAIRMAN OF THE BOARD

Leroy A. Lincoln,  
PRESIDENT

1 MADISON AVENUE, NEW YORK, N. Y.





line as fuel for private automobiles, it does suggest coming changes in American customs. In fact, as applied to railroads and power boats, the Diesel has already demonstrated its capacities as a change provoker. What else is it likely to do?

In a paper delivered to the American Society of Mechanical Engineers in 1939, O. A. Treiber, associated with the Hercules Motors Corporation, offers a ready answer:

The advent of the high-speed Diesel engine into American manufacturing is significant because American production methods open vast fields of applications heretofore impossible or impractical because of cost, weight and size. Large quantity low-unit-cost production requires a substantial investment. However, it makes

economically possible the use of these engines in automotive equipment, tractors, and a myriad of industrial applications where the owners can enjoy the low operating costs of a Diesel engine.

Other engineers, in the past rather pessimistic about the chance of Diesels to compete with gasoline engines on the highways except for heavy duty work, are beginning to share this enthusiasm.

This does not imply that they believe Dieselized vehicles will soon compete on equal terms with the highly-developed, entrenched gasoline-powered truck, especially in the light-haul market which at present constitutes 95 per cent of the trucking field. Gasoline engine operators pay today for easy starting, quick pick-up and smokeless exhaust. For the

money, the gasoline-engine is a remarkably efficient power plant. Its mass production economies set up a standard which even the cheapest Diesel engines find hard to meet.

Furthermore, it is not generally true, as is commonly supposed, that a Diesel, size for size, is more powerful than a gasoline engine. And, as the demand for fuel oil for transportation goes up, so inevitably will the price, which today is a strong selling point of oil-engine producers. Moreover, if the Diesel light-weight, high-speed motor continues to improve in efficiency, there is no sound reason to suppose that the gasoline engine cannot improve likewise.

### Attacking the light-haul field

NEVERTHELESS, because of the peculiar advantages of Diesel operation—fuel economy, durability, safety-factors, lugging power—the light-weight, high speed, oil-burning engine today gives every indication of breaking heavily into the light-haul field. Significant is the fact that General Motors, primarily an automotive concern, is rapidly becoming one of the biggest boosters of Diesel products and that Caterpillar, hitherto builders of heavy-duty engines, is now looking toward the light-haul field.

To understand the Diesel's place in the future power picture, it is necessary to know something about the engine itself. Simply stated, Diesels are "internal-combustion" engines. They still differ, however, from gasoline powered motors in kind of fuel used, fuel and air supply system and method of ignition.

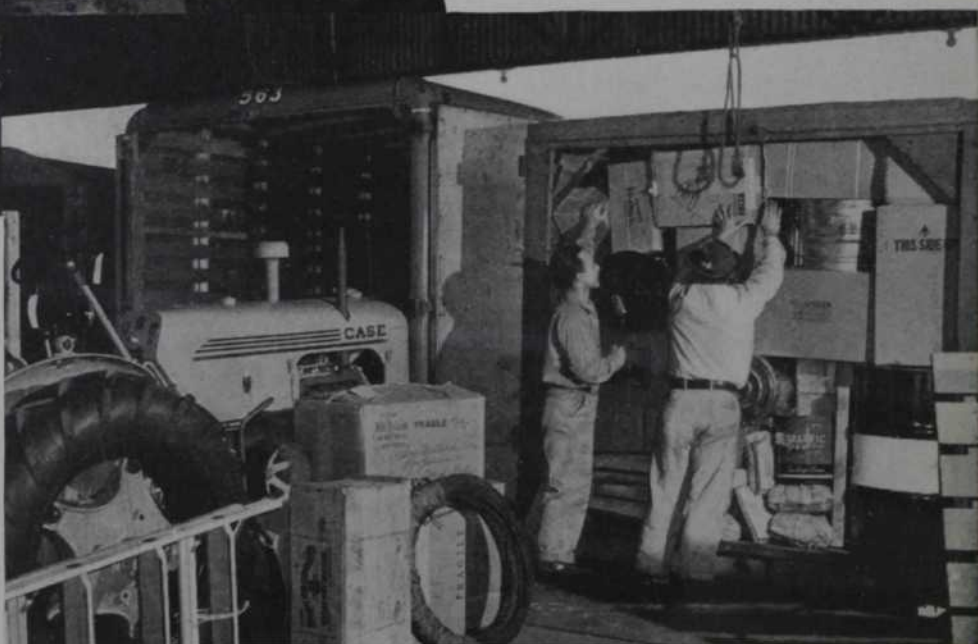
In a gasoline-engine, vaporized gasoline, mixed (outside the cylinder) with air by the carburetor and ignited by a spark, provides the explosive force to

*(Continued on page 84)*



Cleaning with steam bath after a long haul is part of routine care

The light-weight, oil burning engine gives every indication of breaking into the light-haul field





# Canada...War... and the U.S.A.







DIRECTOR, PUBLIC INFORMATION, OTTAWA

Canada now builds planes, machines. Skilled men increase. Peace will find her with new buyer-seller relationships

A NEIGHBOR, bound to us in a relationship unique among the nations of the world, is at war and we, though nominally at peace, are her ally. If both of us are to gain the fullest benefit from this joint effort and from the peace that will follow, we must understand each other. War changes the personalities of nations. From this struggle, a new Canada—perhaps a new United States—will emerge. This article is an effort to show what Canada is doing today and to reveal how the war may affect her—and us



# Canada...War



## and the U.S.A.

**"GRIMLY SILENT; TERRIBLY IN EARNEST."**

That was the unanimous opinion of the two-score American writers who went to Canada last fall to have a look at a neighbor at war. They travelled 2,700 miles by special train; saw at first hand what Jack Canuck was doing; learned what he was thinking. Coming home, they described what they had seen.

Their accounts are significant and revealing. Through them all runs a common note of conviction. Among the visiting writers none failed to marvel at the "grim earnestness and determination" which they found everywhere.

One reported:

**Spirited determination as opposed to enthusiasm.**

Said another:

**A war effort that is solid but not flamboyant.**

This spirit is at least partially due to the fact that Canada's decision to go to war a year and a half ago was made by Canadians. It was voluntary. Canada no longer goes to war or makes other vital decisions affecting its national well-being solely because of what Great Britain may think or do. Since 1927, there has been complete independence among the British self-governing Dominions. In that year the Statute of Westminster gave constitutional form and substance to the new spirit of nationhood which emerged after 1914-18.

The Great War saw Canada grow from adolescence to maturity. The stripling which leaped to the aid of a Motherland came out of the war toughened and tempered. It had found itself industrially. Big sprawling steel plants, shell factories and workshops took shape. Production lines spewed forth equipment of a kind and variety



**Prime Minister King  
crosses no bridges  
'til he comes to them**



never dreamed of before. Canada actually sold shells of its own manufacture to us for war use.

But Canada, like the United States, had no stomach for military "preparedness" once the war was over.

Thus in September, 1939, Canada faced a war commitment with the barest skeleton of armament and military personnel. Some persons even doubted if divided loyalties and internal schisms would permit a united commitment for war. Parliament met on September 7; declared war on Germany September 10. Not one of the 245 representatives voted against war.

We Americans cannot overestimate the importance of this commitment. Just a year earlier at Ivy Lea, President Roosevelt had declared the two nations to be one for purposes of joint defense. Canada's decision for war was, therefore, a matter of supreme importance to the United States. It brought the war to North America.

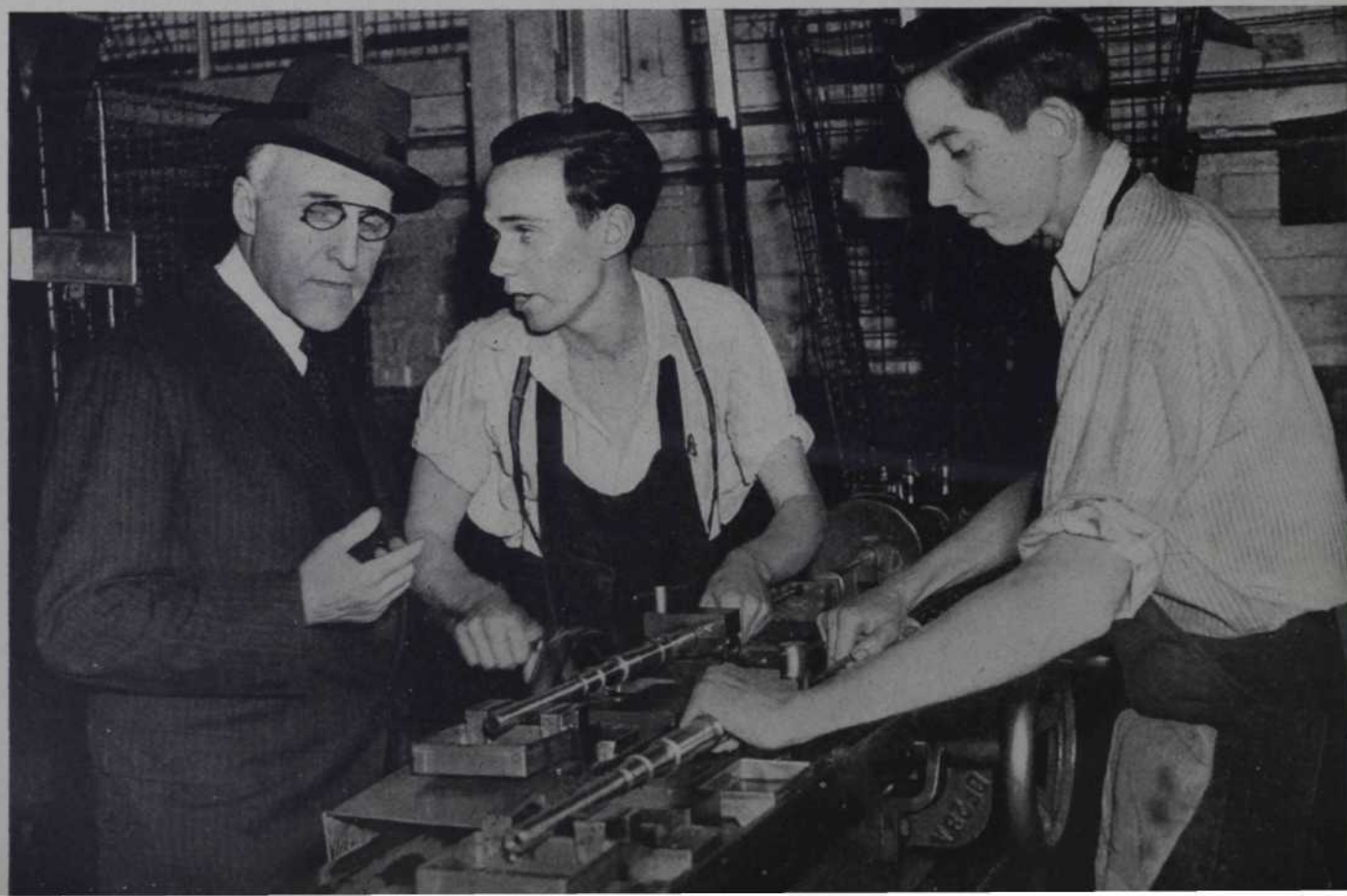
This Canadian neighbor of ours holds a unique place in the democratic family. Her traditions, her loyalties, her constitutional forms are still closely, if not inseparably, linked with the fate and fortune of Great Britain. Yet geography and twentieth century habits bind Canada increasingly to ourselves.

No nation on earth can boast connections and responsibilities in the family of nations similar to those of Canada. To us she is cousin and neighbor. To Britain she has been daughter and sister; may some day be heir. She is the one common denominator in the English-speaking fraternity of nationhood, the one nation that is both a British and an American nation.

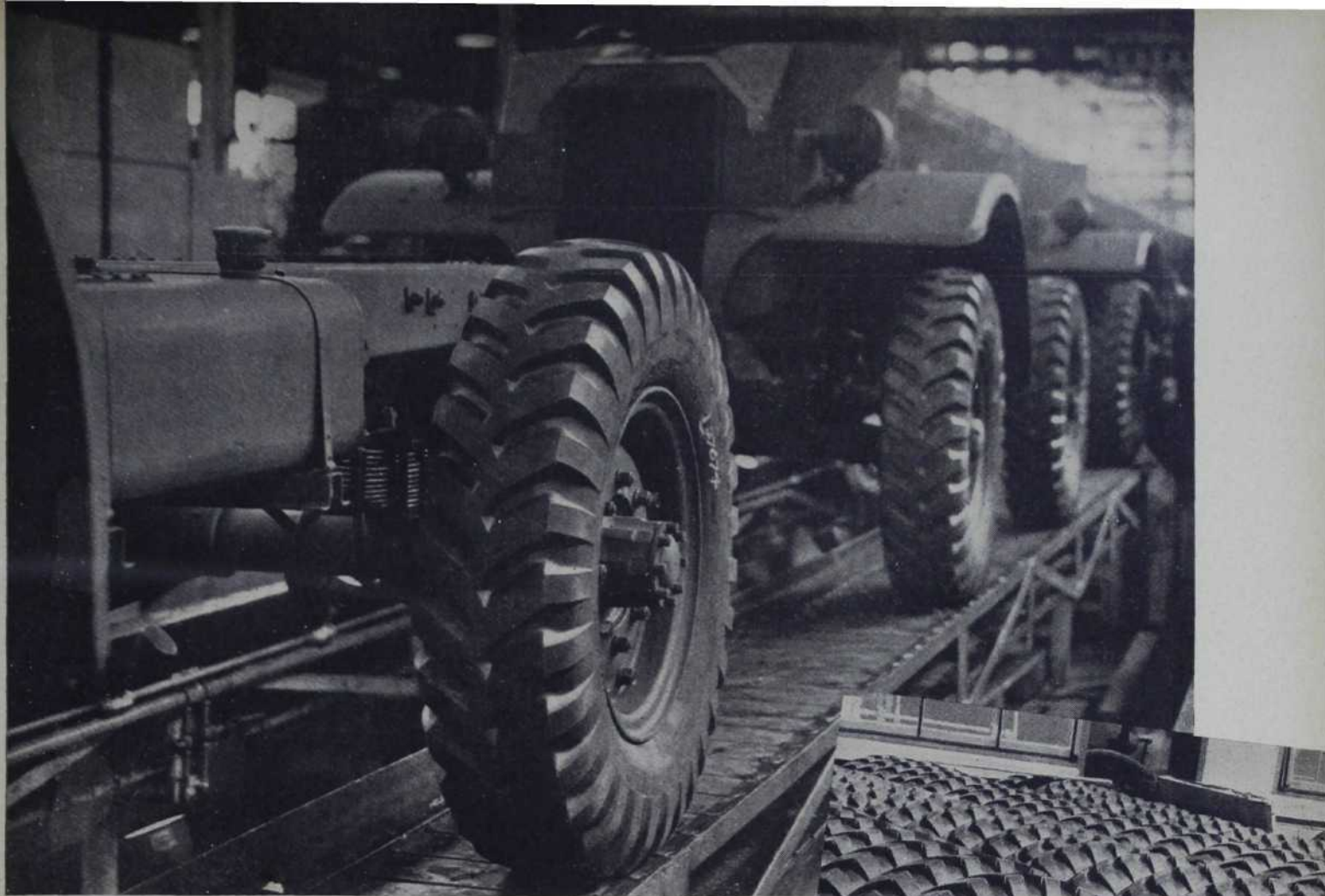
To understand Canada, its problems, and its achievements, a little history is useful.

Canada has been called the nation that shouldn't be there. That there is one nation called the Dominion of Canada instead of five

**Defense Minister J. L. Ralston, lawyer and World War soldier, visits production plants—machine guns here—tries guns on the range, is most effective government radio speaker**







ASSOCIATED SCREEN NEWS

separate nations sprawling across our northern border is in itself a miracle, because, economically, Canada does divide into five separate, distinct areas.

Far out on the Atlantic Seaboard are the three Maritime provinces—insular, mentally self-contained, but as prolific in the production of national leaders as is our own New England.

Then comes the French-speaking province of Quebec, unique in tradition and in religious loyalty, as well as in its law, in its education system, in its living habits and in its conservative customs.

In the center is Ontario, most highly industrialized area of the Dominion. Ontario's southern extremities wedge deep into the industrial states which border the Great Lakes. Its topmost borders stretch far up through the fabulously wealthy Laurentian mineral shield to Arctic-tipped Hudson's Bay. Richest in industry, it is also richest in agriculture and in mining.

Rolled out flat between Ontario and the Rocky Mountains are Canada's three prairie provinces. Traditionally the "bread basket of Empire," they now diversify an annual production of 350,000,000 to 400,000,000 bushels of wheat and an increasing variety of other farm products with coal, minerals, oil and manufacturing.

Beyond the Rockies and washed by the Pacific is British Columbia, extending from near Seattle clear through to the Yukon and Alaska. To fishing, mining and lumbering it adds the products of the Okanagan fruit valley.

Nearly half its 750,000 population cluster around the chief city, Vancouver.

Seventy-five years ago these struggling scattered colonies, which



FINANCIAL POST

*American dollars are already helping in the Canadian war effort. Citizens of the United States have some \$4,000,000,000 invested in nearly 1,900 Canadian plants*





C. G. ("Chubby") Power, Minister of Air Defense, has job of providing "inexhaustible supply of trained airmen to carry on for years, if needs be, the war against Germany"

BRITISH COMBINE

now comprise the Dominion, stood together at "an economic crossroads." Each area faced, simultaneously, a crisis.

The Maritimes had almost reached the end of their golden age. The prosperity of wood, wind and water was giving way to steel and steam. Though the peoples of these three provinces (Nova Scotia, New Brunswick and Prince Edward Island) might not have dreamed of a federal union a few years earlier, they were ready in the 1860's to weigh against the risk of a political union the advantages of an inter-colonial railway, linking them with the rest of Canada.

The Provinces of Canada (now Ontario and Quebec) nursed their headache in the morning-after of a railway boom. The Government was saddled with \$40,000,000 of uncollectible railway debt. It found itself in a geographic *cul-de-sac* and badly in need of larger domestic markets.

The tiny settlements which strung bravely across the western prairies—the largest was Red River (now Winnipeg) with 10,000 souls—were dissatisfied with the rule of the omnipotent Hudson's Bay Company. They were, in the language of that day, "toddling into the arms of the United States."

On the West Coast, British Columbia drooped under the burden of debt left with the collapse of the gold boom. Gloom and depression replaced buoyant optimism.

## The birth of a nation

IN THIS coincidence of common economic adversity, leaders of vision and stubborn courage arose. They called a conference at Charlottetown in 1864. It dissolved in bitterness and debate. Nothing daunted, they met again at Quebec and fashioned Canada's Magna Charta—the British North America Act which linked the Province of Canada with Nova Scotia and New Brunswick. It was an adventure in faith, an "escape from existing difficulties and stimulus for renewed expansion and prosperity." Within six years, the addition of British Columbia and Prince Edward Island extended the Dominion from coast to coast.

This new Dominion was a federal union patterned largely on our Constitution but reversing the "balance of power" as between the central Government and the federating states. Provinces were given exclusive power over the administration of justice, education, "property and civil rights," municipal institutions, prisons, hospitals and public lands. The residue of powers was reserved to the central authority.

It is a continuing miracle that Canada still remains one nation. Not a decade has passed without learned and expert prophecy foretelling the break-up which never comes. Forces tending toward disruption are deep-rooted.

In Quebec: an all-powerful racial and religious bloc brooking no interference with rights pledged by the British conquerors of 1763 to the French settlers; rights never since violated.

In the prairie provinces: the fact that 2,500,000 persons who buy a large proportion of creature comforts at prices a fifth to a third greater than those paid in this country must depend on world mar-



kets and competition for their chief source of income—the sale of wheat.

At both “extremes”: geographic pull from those who feel their “natural” prosperity in trade and commerce should come from the exchange of merchandise north and south (with the United States) rather than east and west.

There were many who felt the nation could never outlive the disruptive “conscription” issue which split the country at the time of the World War. Two million French Canadians in Quebec desired not to be conscripted. An election was fought. Conscription became law. Yet Canada remained a nation.

## Firm under fire

COMPETENT nationals who had been through the heat and bitterness of the conscription issue predicted that Canada would never survive the test of decision if another world war occurred. But 18 months ago the nation faced just such a test.

Once more national “cement” held firm.

Canada entered the present war with vivid, helpful memories of her 1914-18 experiences.

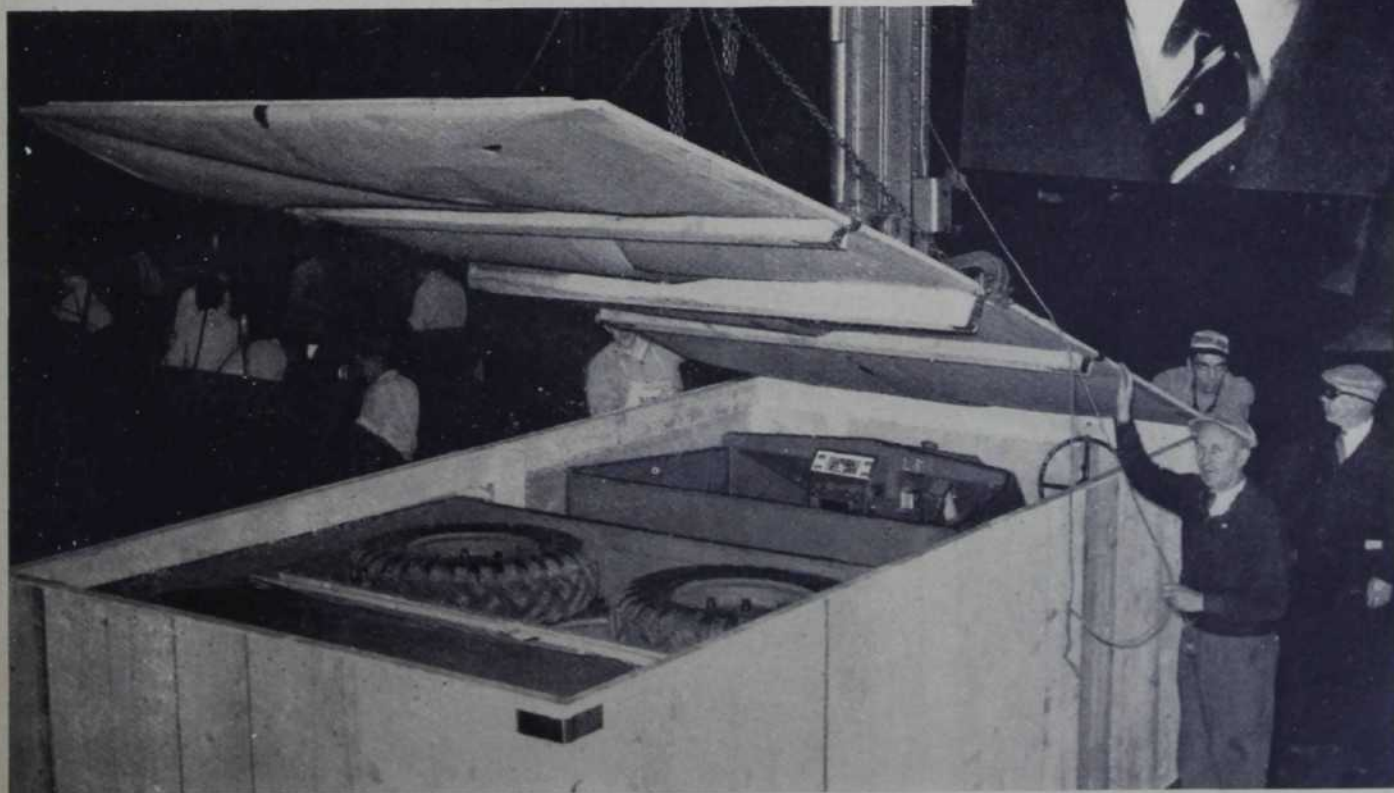
The Great War had been costly. By the time troops were demobilized the public debt had jumped from \$544,000,000 to \$3,000,000,000. Federal costs had risen from a modest \$186,000,000 a year to a peak of nearly \$700,000,000.

Not all this increased debt and expenditure was directly due to war. Half-finished railways, products of pre-war optimism and expansiveness, had suddenly become the Dominion Government's problem. Blithely, it assumed all the burdens and found itself with a railway incubus that was to cost it more than the war itself.

Experts call Canada “Empire's most important source of mechanical transport”; 20,000 of her units served in Libya, current production is 400 a day. J. H. Berry helped iron out production difficulties, speed building



WIDE WORLD



BRITISH COMBINE





**Financial controls devised by youthful Graham Ford Towers conserve Canada's capital, guard foreign exchange. A painless strait-jacket, they restrict ordinary business very little**

Fortunately, new debts and commitments were paralleled by rapid industrial expansion. Physical wealth, as well as dollar value of industrial and community assets, gained by leaps and bounds. After the price deflation of 1921, exports boomed, factories multiplied, jobs increased. Much of this was due to capital from this country which continued to pour in after the war. Dollars from the United States opened up new developments in mining, newsprint, power and other channels.

Canada's "foreign" policy, in most of the critical years between 1918 and 1939, was largely that of the Rt. Hon. William Lyon Mackenzie King. For 14 of these 21 years Mr. King was both Prime Minister of Canada and Minister of External Affairs. An astute critic of Mr. King's "foreign" policy at the beginning of 1937 summarized it into these major points:

1. The guiding principle: to maintain the unity of Canada as a nation.
2. To be concerned primarily with the United Kingdom and the United States, rather than League of Nations relationships.
3. To assume no obligation as to military or economic sanctions, or as to the defense of any other part of the Commonwealth.
4. To get the approval of the parliament or people of Canada before participation in sanctions or war.
5. To participate willingly in international inquiries into international economic grievances.

One secret of Mr. King's success as a statesman, according to observers, is that he never crosses political bridges until he comes to them. If time will provide a solution, Mr. King can be counted on to find the answer in that direction. Meantime, he does not commit himself.

## Britain in the dark

IN THE MATTER of foreign policy, for instance, Mr. King could never be brought to say whether he was in favor of Canada's participating in war in certain circumstances and to a certain extent and, if so, in what circumstances and to what extent. At least one emissary to Canada from Great Britain before war broke out explained the failure to place pre-war "educational" munitions orders in Canada by asserting that it was not at all certain that Canada would not remain neutral and forbid export of munitions to Britain!

This lack of a clearly stated foreign policy explains Canada's failure to evolve, in the 1930's, any clear-cut defense policy. It explains Mr. King's unwillingness to cooperate actively with the British Government when, in 1937, it made unofficial overtures for the establishment in Canada of British facilities for the training of air pilots. The specific point at issue at that time was allegedly the question of sovereignty—that is, Canada's unwillingness to have the armed services, even of its own Mother country, operating within its borders. (The last of the old Imperial garrisons withdrew from Canada just after the turn of the century.)

More fundamental was Mr. King's unwillingness to risk a commitment which might conceivably have tied his hands in the event



of war. And Mr. King knew only too well that any attempt to define Canada's foreign policy too clearly would have blown up a political storm which might have split political parties and aroused political, racial and sectional passions.

## Pattern for preparedness

**Two years ago completely unprepared, Canada set up an organization which will soon employ one out of every seven men in the war effort. Ingenious, it is adaptable to England's needs and to cooperation with the United States**

WHEN CANADA decided to go to war, there was a threefold job to be done.

1. A military program starting almost from scratch had to be evolved and implemented.
2. The nation's economy had to be mobilized to supply the sinews of war at home and abroad.
3. The nation had to be organized so that both these jobs could be done with speed and efficiency.

At the head of Canada's war effort is Prime Minister King. He is president of the King's Privy Council for Canada (the federal cabinet is actually a committee of the Privy Council) and chairman of the war cabinet committee. This committee includes the ministers in charge of the three defense services and the ministers of the following departments of government: Munitions and Supply, Finance, Justice, National War Services, Mines & Resources.

In brief, this is how responsibility is apportioned:

The three fighting services have a defense council of their own composed of the individual ministers (Army, Navy and Air), their deputies and chiefs of staff.

Munitions and Supply is a new wartime ministry through which all buying of munitions and supply for the three services is channelled. This ministry is also the sole buying agency in Canada for the British Government. It has control of raw material priorities through eight "pocket dictator" controllers, members of its Wartime Industries Control Board.

Under the Minister of Labor is Canada's first war control agency, the Wartime Prices and Trade Control Board, charged with protecting the supply and holding down the price of necessities.

The old-established Finance Department now fathers the new and potent Foreign Exchange Control Board as well as Canada's central banking institution—Bank of Canada.

Wartime labor problems are cleared through a special new coordinating committee headed by the Deputy Minister of Labor.

National War Services is a new department responsible for "voluntary" and inspirational effort; coordination of war charities, national registration, public information (propaganda), etc.

During March, Canada's war program and needs for the fiscal year beginning April 1, 1941, were actively debated at Ottawa. When this program reaches its peak, about September, one out of

Timber is one of Canada's economic "Big Three" although only ten per cent of resources have been tapped. She has sold us 40,000,000 tons of newsprint in 25 years



CANADIAN BUSINESS



every seven men more than 16 years old will be employed either in the armed services or directly in munitions work. Estimated cost for the year is at least \$1,450,000,000, or \$4,000,000 a day. This figure does not include \$1,150,000,000 of financial assistance to Britain. On a comparative population basis Canada's war budget is equivalent to a \$30,000,000,000 expenditure by us.

The pattern for war is drafted, of course, by the armed forces—whose program conforms closely to Britain's needs and plan—a pattern which will now be increasingly influenced by joint Canada-U. S. defense plans. Most important of the services in personnel and dollar commitment is the Canadian Army.

Last year, Canada's Army accounted for 48 per cent of total war costs. In plans for 1941, the Army is asking for \$667,000,000 or 46 per cent of the war budget. A comparable figure for the United States would be \$7,700,000,000.

Besides an active service force of 100,000 men stationed for home defense in Canada, another 65,000 are serving overseas, in Great Britain. Others are on duty in Iceland, British West Indies and Newfoundland. Another 175,000 are enrolled in militia reserve regiments.

Canada has had two divisions stationed in Britain under its own brilliant Corps Commander, Lt. Gen. A. G. L. MacNaughton. (General MacNaughton, at the outbreak of the war, was president of Canada's National Research Council. He is rated as one of the ablest artillery officers in the world.) A third division is proceeding to Britain shortly.

Biggest army expansion planned for 1941 is further reinforcements to the active Army and the mobilization of a fully armored division and tank brigade. As well, Canada is drafting a small number of 21-year-olds into four-month training camps.



Arthur B. Purvis is Washington representative of new ministry which handles Canadian buying

Youth takes a hand as all Canada unites in the job of winning a war







BRITISH COMBINE

Senior Minister of Defense in Canada and actively responsible for the army is Col. J. L. Ralston, K. C., a top-ranking Montreal lawyer with a splendid record of service in the last war.

The job of Canada's Navy (under Angus L. Macdonald, Minister for Naval Affairs—a Gaelic-speaking, Harvard-trained lawyer-professor, and former Premier of Nova Scotia) is to assist in defending Canada's coastline, in convoying ships across the Atlantic, in patrolling Atlantic waters and in repelling enemy forces which threaten the invasion of the British Isles.

When war broke out, Canada had but 1,774 officers and men and 15 ships in its Navy. By February, 1941, personnel had grown nine-fold. The number of ships was 12 times greater. By this time next year, Canada expects to have 27,000 officers and men and 413 ships. Naval costs amount to about eight per cent of war expenditure.

One of Canada's most effective war jobs has been responsibility for the North American end of the Atlantic lifeline. Under command of Canadian officers more than 27,000,000 tons of foodstuffs, war materials and supplies have been despatched from Canada's famous and "nameless" eastern ports.

Canada has also embarked on a formidable shipbuilding program involving at least \$220,000,000 of construction. Most spectacular item is a new type of naval patrol boat, the "Corvette," costing \$600,000 to \$700,000 each and well equipped for convoy escort, minesweeping, anti-submarine and coastal work. Canada has orders for 80 Corvettes, has completed 50 already. The program is a full year ahead of schedule. A new Government-owned company plans to build some \$100,000,000 of 9,300 ton cargo ships.

A third of Canada's war expenditure now goes to develop her air force and her mounting responsibility for the giant Commonwealth Air Training Plan. At the end of 1940, air force personnel had risen



WIDE WORLD

Ill health caused Charles Dunning to retire two years ago. Now he's back in harness

In World War, Canada made little artillery. Now, draughtsmen like these, here studying an anti-aircraft shell, turn out both guns and ammunition, often improve methods and types



Already Canada has two divisions in England under Lt. Gen. A.G.L. MacNaughton, rated one of the world's best artillery officers. A third leaves soon



ninefold. Three fighting squadrons were overseas. It was planned to increase that to 25. These will complete their training in Britain and be equipped in that country. Minister of Defense for Air is genial, Irish C. G. ("Chubby") Power, who gets much credit for magnificent work in speeding up the air training plan.

Responsibility for the Air Training Plan is Canada's most significant single contribution to the war effort. The plan aims to provide "an inexhaustible supply of trained airmen to carry on for years, if needs be, the war against Germany."

That Canada should undertake a scheme of this type and magnitude is natural and logical:

Canada has vast open spaces ideally suited to air training.

Her airdromes are free from constant or threatened bombing.

In the World War, top honors on the Allied side went to Canada's fliers for their matchless daring, resource and ability.

Since 1914-18, Canadian pilots have "kept their hand in" by millions of miles of gruelling flight, rolling back the nation's northern frontiers. Canadian airlines had led the entire world year after year in the total volume of freight carried by plane.

The plan was announced in October, 1939. On December 17 an agreement was reached between representatives of the United Kingdom, Australia, New Zealand and Canada for establishment in the Dominion of this gigantic "university of the air." Original cost was estimated at \$600,000,000 of which Canada's share was to be \$350,000,000. Because the plan has been enlarged and speeded up, it is now listed officially as a \$1,000,000,000 program with Canada's share of cost proportionately higher.

The agreement runs until March 31, 1943, and is under direct administration of the Canadian Department of National Defense for Air. It calls for progressive establishment of 71 training schools for pilots, air observers, air gunners and radio operators from Canada and other parts of the Empire.

More than 40,000 persons are required for maintenance and instruction personnel alone at these schools. Construction work on airdromes, training facilities, and so on, will be completed one full year ahead of schedule. The plan is expected to reach peak "production" of air pilots, observers and gunners, by September, 1941.

## Meeting the challenge

ORIGINALLY a large proportion of aircraft needed for the training plan was supplied by Great Britain. After midsummer, last year, most of this responsibility was thrown back on Canada, necessitating greatly increased manufacturing in Canada and increased purchases of aircraft, air-engines and parts from this country.

Canada's entire munitions and supply program (including aircraft production) is centered in a new ministry created since the war—the Department of Munitions and Supply. This ministry is also the sole buying agency in Canada for the British Government. It is represented by its minister, C. D. Howe, on the British Supply Council for North America which has headquarters at Washington and is headed by the Rt. Hon. Arthur B. Purvis. Mr. Howe, an



American-born engineer (product of Massachusetts Institute of Technology, where he once lectured), was formerly Canada's Minister of Transport. A builder of grain elevators, he entered politics in 1935.

His department is staffed largely by dollar-a-year men. There is no dollar-a-year coordinator or "general manager." The Minister is "the boss." A dozen "directors-general" are in charge of separate divisions: munitions (guns, shells, small arms); aircraft; ship building; construction; priorities; naval supplies, and so on. Besides the Wartime Industries Control Board discussed elsewhere, two features of the departmental organization are noteworthy. First is the creation of ten "crown" corporations each charged with responsibility for some phase of production.

By far the largest is Allied War Supplies, Ltd., with head office in Montreal. It has as chairman of the board former Minister of Finance Charles Dunning who was forced to retire from politics in 1939 due to ill-health but is now back in harness.

## **Dollar-a-year men at work**

ALLIED War Supplies carries the brunt of responsibility for Canada's vast chemical, explosives and shell-filling program. An official progress report terms the program and organization "the greatest ever undertaken in Canada."

Partly to decentralize, partly to be nearer key industries and partly because much of this investment may be of little value after the war, this and similar companies have been formed, usually with administrative offices in Toronto or Montreal. Each company has a directorate of Canadian industrialists, with a dollar-a-year executive as general manager. Assets and equipment are wholly owned by the company in trust for the Crown. Directors are wholly free to operate without political red tape or interference.

Other government companies include Research Enterprises, Ltd., a corporation to manufacture secret and technical equipment such as range finders, optical glass, etc.; several firms to assist the Government in buying raw materials; a housing corporation (Wartime Housing, Ltd.) to provide accommodation for war workers; a separate company to buy and coordinate Canada's machine tool requirements; others to make small arms and build ships.

A second feature of the departmental organization is the management fee contract.

To provide established industries with needed capital for wartime expansion or equipment, the Government has made scores of contracts on a management fee basis. The Government retains title to the new plant or equipment but makes it available to an established industrial firm which is then given a contract to produce supplies on a "fee basis."

For example: The Government wanted brass production expanded far beyond reasonable peacetime needs. It asked two big Canadian companies to build and operate new brass plants. In one case (Anaconda American Brass), the new plant will adjoin the present factory which the company had previously enlarged at its own ex-



**American machines like this one cutting car axles for tool making are busy in the war effort. When peace comes, we may find them in competition with us**





Although someone's life may depend on her efficiency in cartridge loading, she accepts the once unfamiliar task with an assurance that is an outstanding characteristic of the whole Canadian war effort

pense. In the other case a company with a big stake in the copper and metal field (Canada Wire & Cable) was asked to build and operate, for the Government, on a prescribed "fee" basis, a new brass plant near Montreal.

Since war began, the British and Canadian Governments have made capital commitments of more than \$380,000,000 to expand and equip Canadian industry. Business men there admit the effectiveness of capital assistance by government but keep a canny weather eye open in case this may later develop into a swing toward public ownership in industry.

Though Canadian industry was on its mark and eager to do a man-sized industrial war job many months before war actually broke out, it was not until mid-summer, 1940, that the wheels really started to turn.

A delegation of Canadian industrialists had visited Britain in the summer of 1939 to learn why "educational" orders were not being placed; why Britain was not using her Empire partner as industrial "insurance." These men arrived back in Canada the week war was declared. Yet the winter passed and their blueprints for gun barrels, forgings and the like were still gathering dust. When France fell, all that was changed overnight.

Some educational shell orders had been placed before war broke out. Britain had organized a holding company to produce and assemble an order for Hampden bomber "frames." She had given smaller, direct orders to one or two Canadian aircraft companies. British capital had also financed the building of a \$3,500,000 aluminum refinery fabricating plant at Kingston, Ont., to supply aluminum alloy to the aircraft industry. Britain had combined with Canada in an order for Bren machine guns.

Invaluable preparatory work was also done by Canadian automobile companies (Ford of Canada and General Motors of Canada) to design and produce prototype mechanical transport units for army use.

## Tested under fire

IT IS one of Canada's greatest war feats that 20,000 of these units were used in the Libyan campaign; that 100,000 have now been produced. Current production is 400 units a day. This includes army trucks, universal carriers, ambulances.

Today there is hardly any type of war material or equipment which Canada is not attempting to manufacture in whole or in part. Her factories are producing a full range of artillery shells at the rate of 350,000 monthly. These are complete with propellant, explosive and fuse, all ready to go into the guns.

Canadians have not been content to do things the old-fashioned way. Today most of their shells are packed in modern paperboard cartons instead of traditional, costly custom-built boxes. The saving is \$2 a box over World War prices. Canada also pioneered in developing a secret Czech patent for "punching" shell cases which eliminates much of the old and costly boring process. After a Hamilton, Ont., plant had perfected the plan, it was offered gratis to



Britain's famed Woolwich arsenal. It is now standard in the best shell-making plants of Britain, Canada and the United States.

The munitions and supply job to which Canada is currently committed is valued roughly at \$1,500,000,000. (On a *per capita* basis, \$17,000,000,000 would be the U. S. equivalent.) Canada took on most of that commitment between June and November, 1940. She is now getting into high gear on production. Her peak will probably be reached this autumn though subsequent orders may change this. Limiting factors are machine tools for which she depends largely (80 per cent) on this country and a lack of certain types of skilled labor.

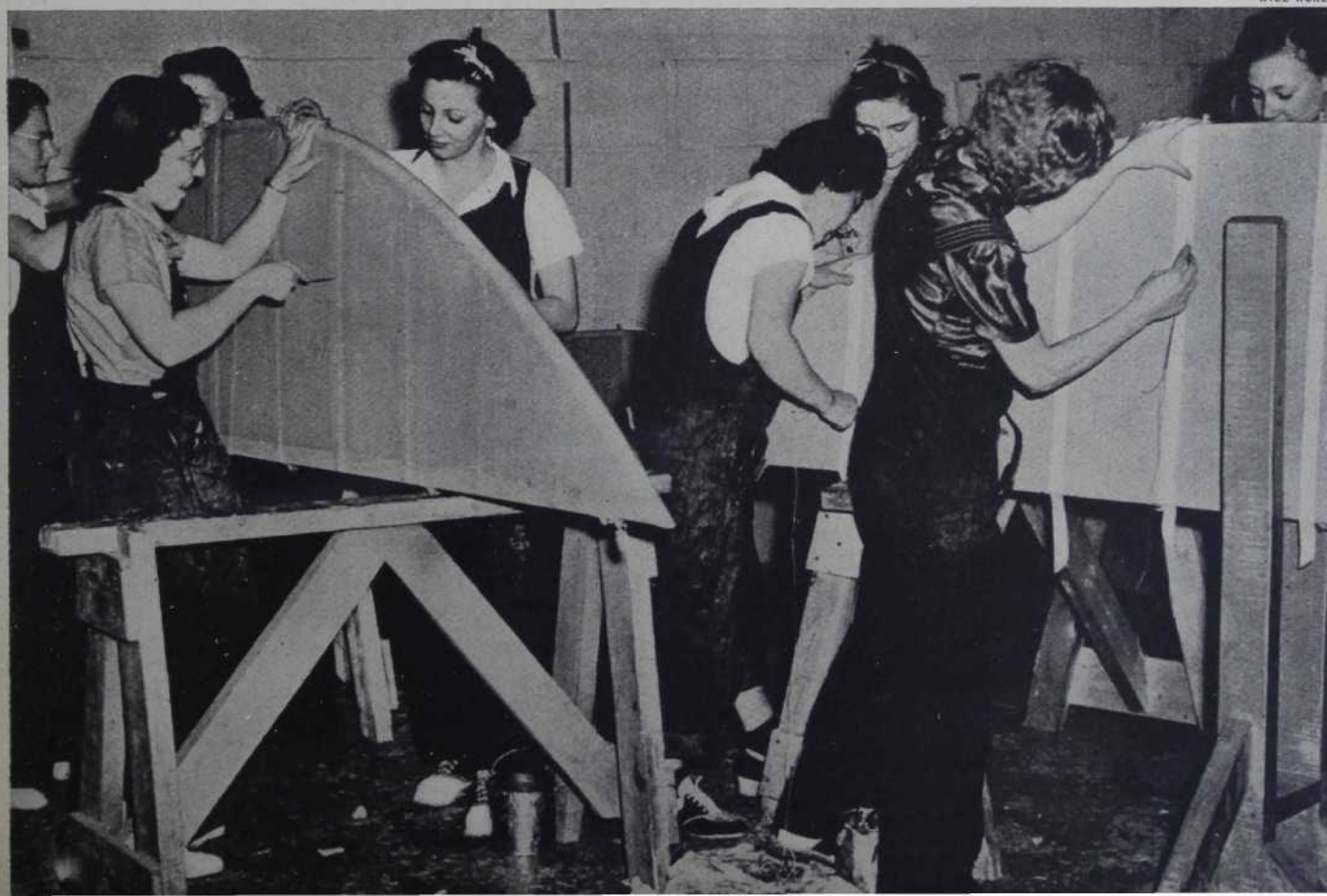
Of this total commitment, more than 60 per cent is on Canadian account, the remainder British. The figure includes \$380,000,000 of capital investment divided roughly as follows: one-third on British account; one-third purely Canadian; one-third on joint British and Canadian account.

Canadians have been given no official breakdown as to how the \$1,500,000,000 munitions commitment is distributed as between airplanes, tanks, guns, and other armament. Individual items can be estimated, for example: airplane orders, \$127,000,000; ship-building, \$220,000,000; tanks, \$90,000,000 to \$100,000,000; mechanized transport, \$150,000,000 to \$200,000,000; shells, \$100,000,000.

Bulk of the remainder is in chemicals, explosives and guns. Some of these figures include work already done (60 per cent of motor transport orders have been delivered); some are for orders not yet in production (tanks).

Another yardstick is the number of persons employed directly on war work. The figure at the end of 1940 was 143,000 (U. S.

**"Men must work and women must weep" is an outworn line in modern war. Canadian women in aircraft factories bomb the enemy, at least by proxy**



WIDE WORLD



equivalent 1,600,000). By the end of 1941, the total is expected to rise to 225,000—about 2,600,000 workers on a proportionate U. S. basis.

Canada's gun program is noteworthy. It includes 14 types of gun and ten types of carriages or mountings. Naval, field, anti-tank guns and mortars are included. In the World War, Canada produced no ordnance, heavy, medium, or light guns or howitzers, or similar weapons except Ross rifles and two-inch aiming rifles. Speaking of what is now being done, Harry J. Carmichael, joint director-general of munitions production (he resigned his job as general manager of General Motors of Canada to take on the war job) stated that one plant alone (the Bren gun plant at Toronto) will have an output "of 97,500 a year which will give it the largest production of any automatic gun plant in the world. An additional plant will be in operation in 1942 with an ultimate capacity of 50,000 machine guns a year." Indicating the magnitude of the Canadian small arms program, Mr. Carmichael said that, as far as he could ascertain, the U. S. program does not anticipate production greater than 25,000 units a year from any one of several plants now in production or being constructed.

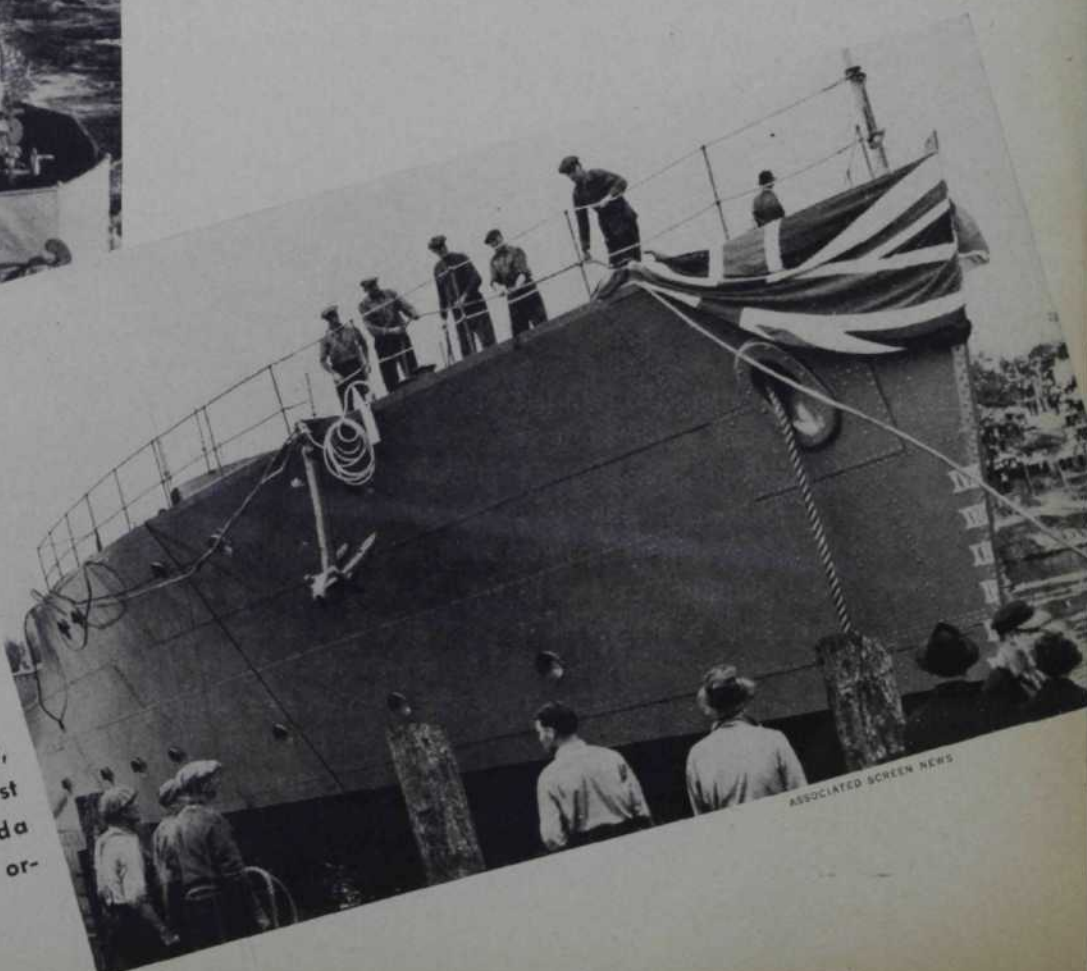
In aircraft, Canada is currently producing about 150 "frames" or planes a month—mostly single-engined trainers. The industry employs 18,000; expects to have 40,000 at work by the year's end. Canada is handicapped by making no airplane engines. Plane manufacture on the modern scale is an infant industry. Before the war, there were not more than 1,000 skilled workers in half a dozen plants. The most vital job is responsibility for supplying trainer planes for the Commonwealth Air Training Plan. A notable production feat is that of Canadian Car & Foundry Co., delivering 15



MONTREAL STANDARD PUBLISHING CO.

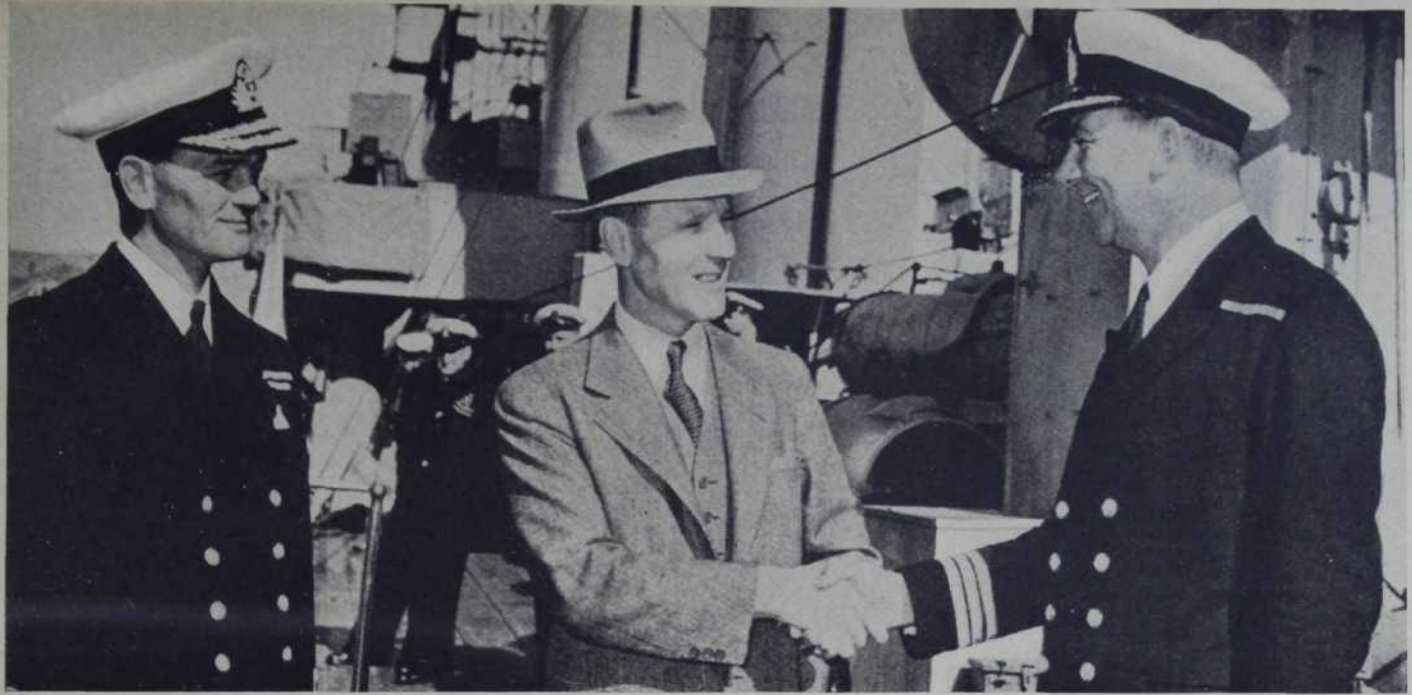
Canada's Navy had 1,774 men when war broke out. Greatly expanded, it now guards North American end of British life line

"Corvette" is a versatile craft—convoy, minesweeper, coast defense. Canada has built 45, has orders for 80



ASSOCIATED SCREEN NEWS





ACME

**"Happy landings!" Angus L. MacDonald, Minister of National Defense for Naval Service, (Center) bids farewell to Canadian naval officers casting off for sea patrol**

Hawker Hurricanes (without engines) a week. Canadian plants have also done magnificently at producing large quantities of single-engine trainer planes complete with engines. Some 11 different types are in production or under assembly in Canadian plants. Canada is currently negotiating to manufacture U. S. types, probably two- and four-engined bombers.

As Canada "digests" this armament program, additional orders discussed with Britain by the Hon. C. D. Howe when he visited there in December and January will get under way.

Typical example is a new order for 1,100 of the new Anglo-American cruiser tanks. Britain originally planned to order 2,000 of these tanks in Canada to supplement her order here and permit the Dominion to produce her own needs economically. Then Britain switched her entire order to this country because she was promised faster delivery. Recently Canada decided to go ahead anyway and produce tanks for her own army.

Besides munitions of war, Canada, since 1939, has sent a rich stream of metals, foodstuffs and other raw materials across the Atlantic. Scarcity of shipping has been the only limiting factor.

Since the beginning of the war, Canada has exported to Britain more than 300,000,000 bushels of wheat (she could if necessary double this flow); more than \$100,000,000 worth of bacon and, in addition, substantial shipments of cheese, canned goods and fish. To facilitate an even flow, Britain has made yearly contracts for a minimum \$105,000,000 worth of bacon, cheese, salmon, canned fruits and vegetables and has intimated that normal imports of wheat (approximately 160,000,000 bushels annually) will be continued.

Canada's entire exportable surplus of copper, lead and zinc has been sold to the United Kingdom. Prices are fixed at or near those existing at the outbreak of hostilities. Similar contracts have been made for supplies of nickel and aluminum. Total value is substantially more than \$100,000,000 annually. One of Great Britain's largest single wartime investments in Canada has been the financing of a \$15,000,000 extension to the Aluminum Company of Canada's development at Arvida, Quebec.





After inspecting the steady stream of vehicles rolling off assembly lines, the Earl of Athlone, Canada's Governor General, climbs in, finds comfort not sacrificed for efficiency in the field

McCULLAGH STUDIO

Aluminum, by the way, was one of the first commodities in Canada to be rationed. Metals Controller George C. Bateman, who retains his peacetime job as secretary, Ontario Mining Association, decreed last autumn that no more aluminum would be available for manufacture of housewives' pots and pans. He rations supplies to war industry, controls imports and has eliminated the use of aluminum foil for packaging. He aids in working out substitutes. He has banned copper exports to Japan and zinc scrap exports to all industries.

## Labor in the War

**Labor problem is two problems: training men and keeping them at work. Schools and factories handle first job. Law handles second. Canada has no strikes, gives no wage increases—only contingent bonus based on higher living costs**

TO INSURE an adequate supply of trained labor for munitions and war work and to head off an inflationary wage-price spiral, Canada has made important moves in recent months.

For 1941, Canada plans to train 100,000 factory mechanics and artisans (a comparable figure would be 1,150,000 in the U. S.) for war work. One-half of these will be trained in public and private vocational schools and in special new training centers. Assistance is being contributed (largely by the dominion Government) to provide equipment, subsistence and nominal pay to the trainees.

The other 50,000 will be given the necessary experience through the plant training systems of the war factories and allied industries. Here, under actual factory conditions, they will work with skilled craftsmen and company instructors. The Government has stipulated that youths trained in this way must be paid at specified scales of wages ranging from 20 to 35 cents an hour, for periods of from 30 to 90 days.

Next in importance to "supply" is the need for keeping wages in step with other "prices." To do this, Canada has moved to limit all wage increases in war industries by a rule-of-thumb, cost-of-living wage bonus. In short, wage rates have been pegged at 1926-29 levels. Workers receive a bonus (about \$1.20 a week) for every five per cent increase in living costs.

With no precedent in Britain or the U. S. A., this plan was fathered by Dr. W. A. Mackintosh, the Government's top-ranking economic adviser.

The plan applies as yet only to workers in "war" industries. (Later it may be applied more generally.) Though not compulsory, it was invoked in an official order-in-council as an "instruction" to conciliation boards set up under the Industrial Disputes Act.

Since living costs are up only seven per cent in 18 months, the plan has yet had little application except to give a "ceiling" to wages and bring hope of bonus payments where wage rates are not presently "in line." The bonus is reckoned each quarter; is equal for employees of all wage groups. In the World War, wage rates of



common factory labor increased more than 100 per cent, metal trades by almost 110 per cent and the cost of living 90 per cent.

So far, Canada has seen little or no labor trouble. Though her Industrial Disputes Act, passed in 1907, was not applied to all war workers until June, 1940, Canada had a much better than average year, lost only 278,634 man-working days in strikes—less than half the proportionate number reported in this country. This year strike losses can almost be tallied in hours. Canada does not prohibit strikes. She merely says they must not occur until the dispute has been submitted to a three-man conciliation board for arbitration. In actual practice, about two out of three strikes are settled by negotiation before the actual appointment of the board.

From the moment Great Britain declared war, a stream of war-time orders and regulations has poured from historic "East Block," executive home of Canada's Prime Minister, and fountainhead of "orders-in-council" issued by the Dominion Cabinet through the King's Privy Council. Most of Canada's war legislation is done by order-in-council under authority of the 1914 War Measures Act.

Though Canada's wartime control machinery looks big and totalitarian, little of the authority it commands has yet been used. It is a case of "please" rather than "you must." Penalty clauses are mostly unused. In fact, Canadians appear to feel that they haven't been asked to do enough "going without." Control objectives:

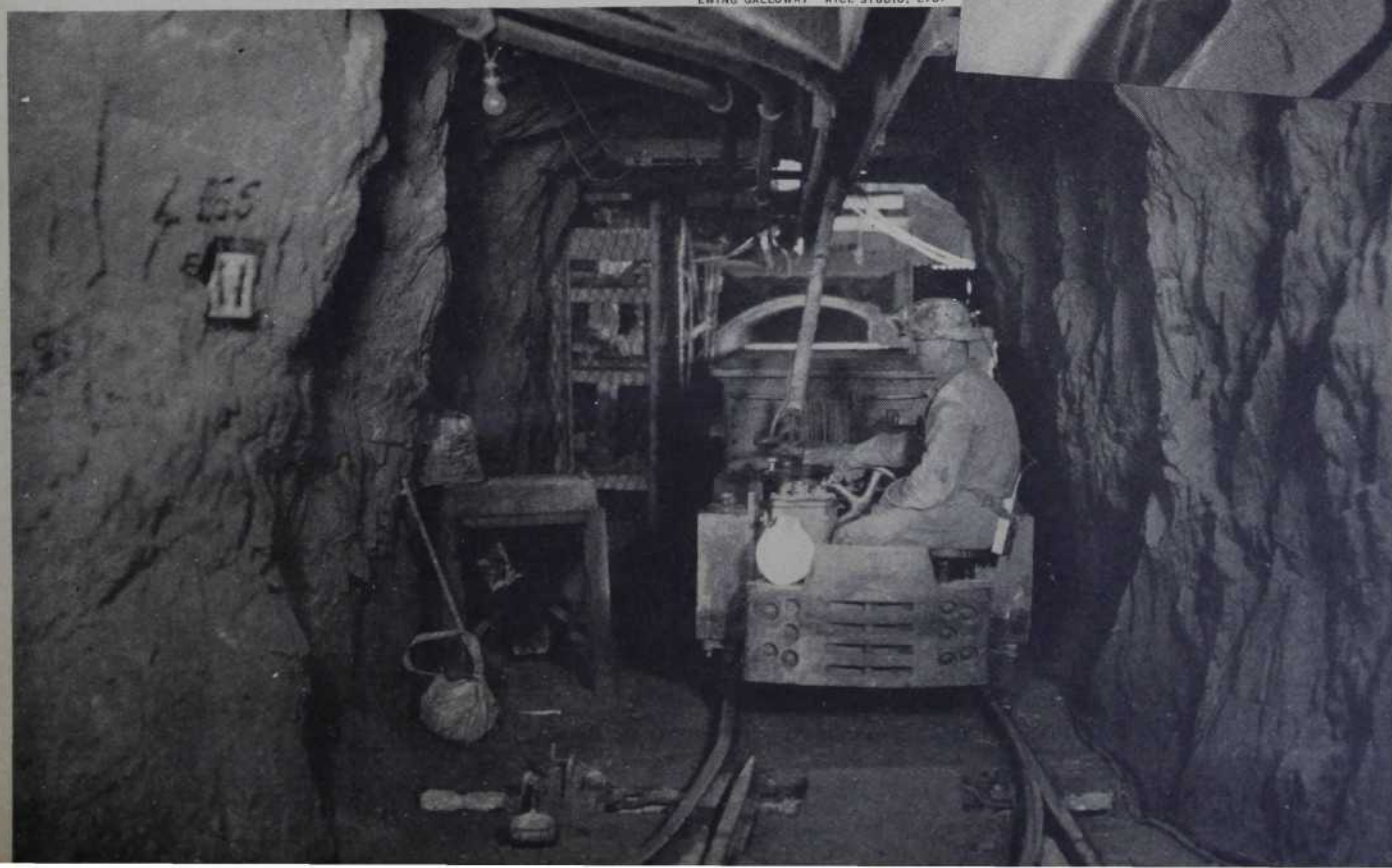
1. To speed war production.
2. To prevent inflation.
3. To conserve foreign exchange.

Responsibility for speeding production rests, as we have seen, with the Department of Munitions and Supply. In this department lies the potent Wartime Industries Control Board armed with dictatorial powers to conserve and direct production and consumption

**Modern gold mines like this give Canada \$200,000,000 annually. Most of it comes to U. S., buys war materials, including airplane engines for Ralph P. Bell, head of aircraft production**



EWING GALLOWAY—RICE STUDIO, LTD.





of war materials. Each member is a "controller" with vast authority over the production, sale, distribution and consumption of his commodity or industry. Controllers so far appointed: lumber, steel, metals, machine tools, oil, electric power, motor vehicles, ship construction and repair.

For example, it was Power Controller H. J. Symington (a Montreal lawyer), who decreed last fall that summertime daylight saving wherever in force throughout Canada should be continued through the winter. This saved sufficient peak load power in the critical winter months to obviate rationing. By next winter, all Canada probably will be on daylight time for the duration.

Then again, it was Machine Tool Controller Thomas Arnold who prohibited the manufacture of new models of motor cars, radios, household appliances or other articles using labor and materials for retooling. This virtually "freezes" 1941 models for the duration. Similarly, Oil Controller G. R. Cottrelle decreed there could be no new gasoline stations in Canada "for the duration."

Steel Control is by Hugh D. Scully, a top-flight civil servant who carries on his peacetime job as Commissioner of Customs each morning, then moves over to his war job in the afternoon. Mr. Scully is also chairman of the Wartime Industries Control Board. Largely by voluntary cooperative effort, steel production (under him) has been upped 60 per cent and war bottlenecks largely eliminated.

Newest controller is J. H. Berry, former production manager of General Motors Vauxhall plant in England. Mr. Berry's first job was to ease production difficulties. Now, as Motor Vehicle Controller, he must license and restrict the sale and manufacture of passenger cars. This restriction now looms ahead.

It is significant that, an hour or two after Britain declared war on Germany and seven days before Canada joined battle, steps were taken at Ottawa to head off wartime price inflation. The Wartime Prices and Trade Control Board was Canada's first war control ma-

**Canada's fields, fisheries and seamen keep a steady flow of food and supplies flowing to England—27,000,000 tons have been shipped so far**

CANADIAN NATIONAL RAILWAYS







FINANCIAL POST

chinery. Its job was to protect the supply and hold down the price of consumer goods.

Today the Wartime Prices and Trade Board is a vital, smooth-working part of the national war economy. Its chairman, Hector B. McKinnon (whom many Americans will know in his peacetime role as Canada's Tariff Commissioner), now has authority to police, not only the necessities of life (he pegged butter prices and rentals not long ago), but also the War Conservation Act. This act placed restrictions on non-sterling (chiefly U.S.A.) imports last December to conserve American dollars for purchase of war material and supplies. Mr. McKinnon's administrators now function also in wool, hides, leather, vegetable oils and coal.

Most of this board's membership comes from Canada's increasingly top-rate civil service "executive." These men are mostly carrying their peacetime jobs as well as heavy war responsibilities. Reinforced by 100 or more dollar-a-year men (many from this country) they form the backbone of Canada's war administration.

It was just such a group—the young men who man the Dominion's central reserve institution, the Bank of Canada, which gave Canada (and the United States) its next big "control." On September 16, Canada found itself in a new and potent financial strait-jacket—the regulations of the Foreign Exchange Control Board.

## Paying for War

**Taxes rise by repeated jumps; war makes trade strait-jackets necessary to guide foreign exchange; yet normal dealings with non-residents meet little inconvenience**

THE underlying aim of the exchange regulations is to provide control with as little interference as possible in the normal commercial and financial dealings between residents and non-residents.

One of the most interesting features is a new procedure to control the operations of companies having complicated or numerous transactions with non-residents. A type of accounting report has been developed that retains control of these operations without requiring

**Not an exciting scene, but a comforting one. Bulging elevators have yielded 300,000,000 bushels of wheat for England. Flow could be doubled, if necessary**



the matching of individual transactions. This device has worked remarkably well—both from the point of view of control authorities and of the companies operating under it.

In practice, the control regulations provide that goods may be exported to any country not under enemy control. There is no attempt to impose restrictions regarding the granting of credits to foreign customers in the normal manner. Goods may be freely imported and paid for in accordance with normal commercial practice—except for certain types of goods which are considered as non-essentials. The usual prepayments for imports may be made.

## Red tape shrinks

THERE has been little interference with non-residents who carry on business in Canada. Several special types of permits have been evolved to reduce red tape. The usual theory of permitting normal commercial procedure is applied here also, and foreign exchange is provided for the net profits earned.

Apart from imports, foreign exchange is provided for the payment of all services rendered by non-residents, and for other normal commercial obligations—such as royalty payments and service charges of all sorts.

The Board also has regulations which enable importers and exporters to cover their forward exchange positions and thus avoid the financial risks involved in fluctuating exchange rates.

No restrictions are imposed on the investment of new capital, and all income earned by non-residents may be withdrawn in foreign exchange. At the redemption dates, funds are provided for the repayment of capital obligations.

Foreign Exchange Control was conceived and created by youthful Graham Ford Towers, Governor of the Bank of Canada and Chairman of the Foreign Exchange Control Board, and his practical-minded associates. Several of its principles and provisions proved so effective and workable that the British subsequently adopted them in remodelling their own more cumbersome legislation.

Financially, this second world war within a generation is a grim responsibility for Canada.

This young debtor nation is still closely tied to the apron strings of the world in which it trades. It has heavy annual service charges to meet on \$6,700,000,000 of British and foreign capital investment. It is dependent for a third of its living on export trade. Its 11,500,000 people must carry a national "overhead" which would suffice for two or three times that number.

In 1940, public indebtedness of all governments—(federal, provincial and municipal) was \$8,900,000,000. (A proportionate figure for the United States would be \$100,000,000,000.) Of this colossal total, exactly one-third is traceable directly to Canada's old man-of-the-sea, railway debt. One-third is debt accumulated on other account by the federal Government. The remainder is provincial and municipal debt. In ten years, public indebtedness rose 44 per cent.

Now Canada must finance a war effort which makes all previous



**Not only soldiers fight. Research workers do bit by finding, among other things, new way of making shell cases, now copied by the United States**



figures of public debt and expenditure look puny by comparison.

Another marked contrast between Canada's war finance now and in 1914 is that financing then was largely by public borrowing, most of it inflationary in character. This time Canada hopes to raise a large part of the cost in taxes. She cannot, so far, float loans in this country as she did in the World War.

Canada had been at war only two days when her first war budget was brought down. The Minister of Finance outlined Canada's policies of war finance. The limit of what Canada could spend on war, he made clear, depended upon the degree to which the country could produce more, and divert more from peace to war uses. There was no simple way out, in borrowing.

So Canada's war finance policy is to tax up to the limit of the people's ability to pay; to borrow the balance and to seek to offset the inflationary effect of the borrowing by putting the nation under the discipline of rigid instruments of control.

The pattern so far has been closely followed. Until mid-1940, war taxes were light to encourage full out production and employment. In 1939, a start had been made by taxing excess profits. There were moderate increases in income tax and some levies on luxury products (chiefly tobacco and beverages).

Canada's second war budget, June 24, 1940, pinched "middle-top" income brackets; clapped a National Defense Tax (three per cent for single persons earning more than \$600; two per cent for married persons earning more than \$1,200) on all wage-earners; added a ten per cent War Exchange Tax on all United States and other dollar imports; upped the "effective" tax rate on all corporations from 18 to 30 per cent, introduced a new and greatly increased Excess Profits Tax of 75 per cent on earnings over the "normal" (1936-39) base.

The third war budget (December, 1940) prohibited a wide range of "luxury" import from "non-Empire" countries (chiefly U. S.) and added a further list on which importation was to be gradually restricted. Automobiles, radios, clothing, toys, were banned outright, while trucks, raw silk and petroleum products were to be gradually excluded. As well, heavy excise taxes (25 per cent for most items) were placed on many corresponding luxury products made in Canada to prevent undue expansion of Canadian production.

The new war taxes on automobiles range from 20 per cent to 80 per cent in addition to a regular eight per cent sales tax.

## War taxes bite deep

BEFORE the fourth war budget (May, 1941), a married Canadian with two children would pay to the federal Government alone \$499 in National Defense and income tax if he earned \$5,000 a year; if he earned \$10,000 he would pay \$2,114, and \$21,544 if he earned \$50,000. Canadian income taxes are now levied on married persons with incomes as low as \$1,500, and single persons earning \$750 or more.

Canada's regular rate of Dominion corporation income tax is



BLANK & STOLLER

Hugh D. Scully, chairman of the Wartime Industries Control Board, has had to use few of the dictatorial powers provided. "Please" has been used rather than "You must."



18 per cent. In Ontario and Quebec, where most corporate income taxes are payable, there is a further five per cent provincial tax. But Canada's minimum Excess Profits Tax of 12 per cent means that most Canadian companies pay at least 35 per cent. In most cases this will take about 85 per cent of the "excess" over the 1936-39 profits.

Federal corporate taxation in the United States is 24 per cent plus an excess profits tax from 25 per cent to 50 per cent of earnings in excess of the average base period earnings for 1936-39, or eight per cent of invested capital, whichever exemption is higher.

Alongside high taxes and public borrowing (Canadians subscribed \$621,000,000 to two war loans in 1940) the Government launched a war savings campaign. The opportunity was given to buy 25-cent war savings stamps to be converted into \$4 certificates. The Government agreed to pay back \$5 in 7½ years. Not until February, 1941, did the campaign make real headway. Then more than 1,000,000 new recruits signed up to supplement the 400,000 who had previously pledged to save regularly "for the duration."

Canada's mineral wealth will play its part in peace as in war. Her versatile mines yield even radium, which will be separated from the ore shown here



## Resources to support War

**Taxes pay for war—but taxes, in turn, are paid by the energy of the people and the facilities at their command. Though Canadian energy is boundless, she depends for production on three major sources**

WHAT are the economic foundations upon which Canada's war program stands?

Graham Towers, governor of the Bank of Canada, is authority for the statement that "More than one-third of the total income of Canadians in terms of goods and services is earned directly from sales to other countries." Though Canada has but one-half of one per cent of the world's population, it now ranks as the third largest trading nation in the world and, even in peacetime, is seldom lower than fifth.

Canada's export trade springs from its soil, its trees and its rocks. Much of it exists because of an abundance of basic products—wheat, metals, timber, which other nations happen to need.

A few examples will give perspective.

Basically, the Canadian economy is agricultural. At times, as much as half of Canada's annual "production-increment" has come from agriculture. Today it is still the major industry because it is the occupation of one-third of the gainfully occupied citizens of Canada. Thus the good or hard times enjoyed by those who manage and occupy Canada's 750,000 farms is a dominant ingredient politically as well as economically in the national make-up.

In the World War, Canadian agricultural production expanded significantly because of huge Allied demands for food. Canada had all of Western Europe, except Germany, as a market. In this war, the market has now shrunk to little more than the British Isles.

Though bacon, dairy products and other items of diversified farm-



ing are gaining rapidly in importance, wheat still remains the pivot of Canadian agriculture. In 20 years, Canada has grown more than 7,000,000,000 bushels of wheat, has used at home only 2,500,000,000 bushels. She has had to find overseas buyers for the remainder, in sales of either wheat or flour. The two-decade value of that trade to Canada in cash has been more than \$10,000,000,000. Practically the entire crop is grown in the three prairie provinces, mostly in Saskatchewan and Alberta.

Europe's post-war agricultural self-sufficiency, plus the drought and world depression of the 30's, hit the Canadian agricultural economy hard. Following widespread farm demands, the federal Government has, in recent years, guaranteed a minimum wheat price. Since the war, this has remained 70 cents for the top grade f.o.b. the Head-of-the-Lakes. This assurance, plus possibility of a new war demand, plus again the return of good moisture conditions, combined last year to produce the greatest crop (560,000,000 bushels) and the greatest acreage (27,700,000 acres) in the nation's history.

The beginning of this year saw every elevator in Canada filled to the eaves and at least 100,000,000 bushels of wheat in temporary and makeshift storage.

To prevent a ruinous repetition of this sort of thing, the Dominion Government this spring decided to bonus acreage taken out of wheat and to limit its price guarantee to 230,000,000 bushels or the equivalent of one year's requirements of the United Kingdom plus domestic demand.

Another prop of the Canadian economy is forestry. Forestry in Canada means many things including most of the newsprint used by newspapers in this country as well as the raw material for cellulose products which use pulp or pulp wood as a base.

In the past quarter century we have bought from Canada nearly 40,000,000 tons of newsprint. Our imports of newsprint have represented 86 per cent of total Canadian sales of newsprint abroad. They have represented 79 per cent of Canada's total production. Indeed, since the decline of King Wheat, newsprint paper has ranked next to gold as Canada's most important single export.

## Gold, copper and lead

STRETCHING deep and rich across Northern Ontario and Quebec is Canada's great gold-copper belt, one of the richest sources of mineral wealth in the world today.

Chiefly by reason of this, mineral wealth is steadily forging into top position in Canada's scheme of things.

In 1913, at the outbreak of the World War, metal mining in Canada was a small and infant industry. Of total annual output of less than \$150,000,000 more than half represented non-metallic minerals such as coal and natural gas.

Last year mineral production topped the \$500,000,000 mark. Of this, four-fifths was in metals—gold, nickel, copper, zinc, lead. Gold production alone exceeded \$200,000,000 compared with about \$40,000,000 a decade earlier.



With his wife looking on, Clarence Decatur Howe studies problems of munitions and supply which are his special field





Known as "Our Lady of the Snows," Canada is prepared to supply ski troops equal to the best, with modern industry keeping up morale with a travelling "Y". Harry John Carmichael directs munitions production

Today, gold has become one of Canada's sinews of war. Every ounce that can be found and extracted comes promptly to the United States to help Canada balance its regular accounts here and to buy key war materials.

Coal is abundant in Nova Scotia's sea-swept isle of Cape Breton. There is also plenty of it in Alberta and British Columbia. Although it is government policy to promote use of these domestic sources by subventions, low rail rates, etc., the highly industrialized areas of Ontario and to some extent Quebec are still substantially dependent on mines in the United States.

In iron ore, big steel plants at Nova Scotia draw heavily on their own Wabana deposits in Newfoundland—deposits rated as the largest and most valuable in the British Empire. Only within recent years has Canada begun to re-explore huge iron ore resources long known to exist along the northern shore of Lake Superior. Eventually she hopes to be independent of iron ore imports. But for some years yet to come, Canada's purchases from us (normally between 1,500,000 and 2,000,000 tons a year) are expected to continue.

These, then, are Canada's big three—agriculture—mining—forestry. In export trade and in the national economy they are dominant. Their development and the extent to which Canada is using the products of her farms, her forests and her mines in her own workshop, is shown in the steadily changing proportion of raw and manufactured goods entering into import and export trade.

Twenty-five years ago, 63 per cent of Canada's domestic exports were raw materials. Today the ratio is between 25 and 30 per cent. Partly manufactured goods which in 1913-14 totalled only ten per cent of export trade are now three times that figure. Though fully manufactured exports have not risen as spectacularly, Canada has more than held her own in this field despite a world-wide shrinkage in this type of trade.

Another significant yardstick is this: 30 years ago the value of raw agricultural production was identical with current values—about \$1,000,000,000. Meanwhile, production value of manufac-



tured goods has risen almost 100 per cent and mineral production 300 per cent.

Canada's "fourth" export is what she has to offer to tourists—scenery, game and fish, winter sports and summer climate.

Across the Canada-United States border flows, in normal times, the largest travel business between any two nations. Until recently, Canadians have estimated the value of United States tourist travel at something like \$250,000,000 annually. Recent more cautious studies have reduced this figure considerably and, in 1940, war and rumors of border-crossing snags deterred thousands of our citizens who might otherwise have visited Canada.

But the need for conserving her supply of dollars to buy war materials and equipment in this country has made Canada more than ever conscious of her rôle as "good host" to a "friendly neighbor." Since war began, the federal Government has raised its tourist advertising appropriation from \$300,000 to \$500,000. Almost all this money will be spent in the United States. Every community in Canada is being urged to be "tourist-minded."

Meanwhile, Canada has felt it necessary greatly to restrict travel by her citizens in this country. (In 1940, normal expenditure shrank by 60 per cent.) Business and health are the only two reasons for permitting would-be visitors to the United States to buy the necessary American funds. Canadians are anxious that this move, which they deem essential if Canada is to have United States dollars to pay for war materials, should not be misinterpreted as unfriendly.

Canadians urge that they are offering good value. They believe their scenery, fishing, hunting, winter sports, transportation facilities and hotels warrant increasing patronage whether in peace or war. They are eager that our citizens should know that the premium on United States dollars gives them one day in every ten free in Canada. Also visitors from this country need no passports either to enter Canada or to leave.

The Canadian economy represents a curious blending of influences. Although the Dominion has traditionally aimed to promote economic relations with other units of the British Empire, the strong-

**An asbestos mine adds its bit to Canada's total mineral production of \$500,000,000 every year**

ASSOCIATED SCREEN NEWS







FINANCIAL POST



HESMITH

Need for war production has frozen Canada's production of new automobiles, raised taxes to as much as 80 per cent. Patriotism keeps women from complaining at restrictions that may make silk stockings taboo for the duration of the war

est pull, its people admit, has always been with the United States.

This pull is manifest in several ways. In the past 30 years the United States has sold Canada more than \$15,000,000,000 worth of raw materials and merchandise. At times as high as 80 cents out of every dollar which Canadians have spent abroad has been spent for our goods. The long term average is between 60 and 70 cents.

Meanwhile, our citizens have invested about \$4,000,000,000 (two-thirds of all foreign investment) in Canada. This is 22 per cent of total Canadian business capital. Canadians, returning the compliment, have invested more than \$1,000,000,000 in this country. On a *per capita* basis this gives them a larger stake in our country than we have in theirs.

Of the American stake in Canada, about one-quarter is in government securities, one-quarter in public utilities (including railways), one-quarter in manufacturing enterprise, chiefly automotive, rubber, pulp and paper plants, metal industries, and the remainder in merchandising, insurance, financial institutions, and so on.

One unique feature of these financial relationships is the substantial and increasing flow of insurance business across the international border. Eleven Canadian life insurance companies have a large and increasing business in this country. They have more than \$400,000,000 on deposit or invested here with trustees for the exclusive protection of policyholders and creditors.

Conversely, one U. S. company (Metropolitan Life) writes more business in Canada than any Canadian company though, proportionate to population, the total of U. S. life business in Canada is only a fraction of the amount which Canadians transact here.

In the fire and casualty field, U. S. companies transact more than half the total Canadian business.

The most significant phase of United States investment in Canada over the past quarter century has been the growth of branch plants. Each year shows a steady industrial migration from this country into Canada. The big names of industry here are big names in Canada. But many of these Canadian branches had roots in Canada,



roots planted by Canadians but now watered and fed by U. S. capital, research and connections.

In the past seven years, considerably more than 200 American firms have established in Canada and scores of others have made manufacturing arrangements there. The number of branch plant or U. S. "controlled" companies in Canada now exceeds 1,900 individual establishments with total investment of about \$2,300,000,000.

This has been a peaceful and friendly penetration. Canadians do not resent the fact that our dollars have helped to build some of their biggest industrial establishments. Nor do they fear that their country will ever become wholly "Americanized." The British tradition runs too deep. Furthermore, there is rising a generation which prides itself on being unlike "the Americans," unlike "the English"—in short, a generation that is essentially Canadian.

## War moulds a nation

THE OUTBREAK of war has increased the feeling of national consciousness and responsibility among the people. They sense, according to one observant Canadian, their unique position in world democratic affairs. Loyal in their Commonwealth connection, they are still fully aware of the tremendous implications of the joint program of defense for the North American continent now being worked out between the two countries.

According to this spokesman, "Such relationships hold no fears for Canadians. They do not foresee political union with the United States. They hope and believe that closer economic interchange between Canada and the United States will be possible. They believe such a union can be mutually profitable."

Part of this unity is due to the transportation system. Since Confederation, Canada has spent more than \$700,000,000 on her canal, harbor and navigation facilities. For the most part, this expenditure has been written off as "national development."

Most important single item of expenditure is the \$135,000,000 Welland ship canal completed as part of the international waterways system in 1930. In the early days, Canada's western farmers were enthusiastic about this Seaway as a cheap outlet to the sea and world markets. Time and a changing transportation scene have cooled this enthusiasm. Likewise traditional opposition from Quebec has modified. There is now mostly indifference as to the value of this project, apart from the eventual need to develop its latent electric power resources.

The Government, however, apparently believes that, if Canada is ever to get any offset financially for her previous investment, she must accede to present pressure by President Roosevelt and agree, as a "defense" measure, to completion by the United States of a 27 foot seaway channel through the international section of the St. Lawrence River.

The highway problem in Canada in relation to other forms of transportation arises because highways are under provincial control. Obviously highways are encroaching increasingly on railway earnings and operations. Yet Canada lacks an Interstate Commerce



ASSOCIATED SCREEN NEWS

Canada knows little flag waving or cheering. Her people are more concerned with learning the grim business at hand than with parades



Commission and, so far, attempts to work out a national transportation policy have proved abortive.

Recently Canada had an unusual opportunity to examine in detail its federal-provincial relationships. A Royal Commission on Dominion-Provincial Relations was created in August, 1937, to "re-examine the economic and financial basis of Confederation in the light of developments of the past 70 years."

Known as the Rowell-Sirois Commission, these Fathers of "Re-Confederation" instituted the most important single study of the political, economic, financial and social facts of national life ever undertaken in Canada or perhaps any country.

Their report, which the House of Commons tabled in May, 1940, is regarded in many quarters as one of the significant documents in Canadian history. Though its findings represent a great national stocktaking, a conference called at Ottawa in January, 1941, to discuss the report broke up within two days in complete disagreement.

Though the report has now been put aside, sooner or later it will be dusted off and studied. How soon that time will come is not now clear. When it does come, the Dominion has available a valuable navigational map to help it chart its course.

There are many reasons why American business men should get busy now and listen to "Canada Calling!" from the point of view of business opportunity, as well as travel for business and pleasure.

## Our Job as Allies

**War is bringing Canada a new stature, a new sense of nationality, a new economy. With peace, her relations with us will be on a basis now unforeseeable but which can, with understanding, mean a greater future for both**

TODAY, in the midst of war, the eyes of the world are turned to Canada. Hitler has called her the richest prize of the British Empire. England looks to her greatest Dominion for soldiers, pilots, planes and tanks, guns and butter, credit.

As for ourselves, never in history has so much of our attention been focused upon this Dominion . . . for several good reasons:

1. We speak the same language . . . in more ways than one.
2. We operate a joint defense program.
3. Both of us are vitally interested in a British victory.
4. We work out joint proposals for public works, such as numerous international bridges and latterly, the St. Lawrence Waterways.
5. Our financial stake in Canada already exceeds \$4,000,000,000.
6. Canada is buying more from us than she ever bought before.
7. The passage of the Lease-Lend Bill.
8. Canada's vast resources, plus her small population offer the most obvious opportunities for post-war immigration and business development.

To say the least, the omens are auspicious. But it is up to us to study the country, to travel and see for ourselves where our money and our goods can be put to work to best advantage.



ASSOCIATED SCREEN NEWS

After the World War, observers warned that another such test would disrupt the Dominion. Instead it has aroused a new feeling of nationality, bringing provinces closer together





**Among the World War's best aviators, Canadians have kept their hands in, have led the world in total of air freight carried, much of it over the world's most difficult flying country**

When peace comes, Canada will have a big part to play in whatever new world order is established for democracy. True enough, there will be the problem of rehabilitation, but this should not be nearly so great as after the World War. Canada's industry and her tremendous natural resources will assist materially in the tremendous job of reconstruction in Great Britain and Europe. In the west the wealth of Midas is waiting. Similarly, although Canada has been our great source of newsprint supply for many years, only one-tenth of Canada's forest resources has been touched.

Turner Valley cannot compare with many of the large oil fields here, yet the oil sands in northern Alberta are estimated to contain 100,000,000,000 barrels of crude.

Industry will have its great opportunity to supply a new demand for living and working. Power a-plenty is available. Moreover, Canada keeps some 50 "salesmen," her Trade Commissioners, on the alert in all strategic world markets. These men maintain Canada's trade with the world, provide new business for new industry.

Looking ahead, most Canadians refuse as yet to take seriously this talk about their nation becoming the political capital of Empire. Britons, they believe, having fought to the last ditch for their island home, may be unwilling to see the political center of gravity move across the sea. If Hitler does not succeed in budging the heart of Empire out of London (and Canadians are thoroughly convinced that he will not) the Dominion has little wish to do it herself.

Nor do Canadians believe that there will be any great influx of capital from across the sea after the war. When you consider the inroads on British and European capital which this war has already made and think of the immense job of reconstruction to be done over there, it is hardly likely that the export of capital will be permitted at a time when they need it most to get on their financial feet again. However, Canadians do believe that certain key industries will move across the Atlantic, followed by a steady stream of selected immigrants who will till the fields and work the mines, consume Canadian-



made products and help solve the railway problem. Should things work out along this line, it leaves the door wide open for us to make the most profitable use of our capital in a rapidly growing Dominion.

Canada senses that, in the new world that is to be, the United States must assume an increasingly dominant place. This, in Canada's view, is all to the good. The United States, Canada believes, is eager to have a strong nation to share with her the responsibility of preserving democracy on the North American continent. England, for her part, is equally eager to have the British Commonwealth represented in America by a strong nation.

What Canada needs of course is more people. She has the resources, the capital equipment, the transportation facilities to care for two, three or four times her present population. She realizes it is precarious to build permanently a national structure unless the base is sound and wide. She realizes how much stronger she would be if she could diversify her economy and develop a more balanced and prosperous economy at home.

She hopes, too, that, because of her stewardship, American capital, once the war has ended, will again flow in, as it did after the World War, to help her sustain the heavy responsibilities now being placed on her shoulders.

Already new lines of inter-communication have opened up. The long-dreamed of St. Lawrence power and seaway program; the plan for a new chain of air bases in Canada by joint agreement to link United States and Alaska via the Dominion; the new joint defense of the ocean entrance to the St. Lawrence-Great Lakes Waterway.

In short, both nations are now committed to a joint and common effort for purposes of continental defense. Canada believes that, when the time of crisis and emergency has passed, the same spirit and foresight will be used to roll back the northern frontiers once again, and to insure that there is common prosperity as well as common safety on both sides of the border.

**Tourists will remember romantic scenes like this in Canada. They will continue when peace comes. But war is bringing industrial efficiency. The Canada of the future will not be the Canada of the past. Remembering that, we can join her in building a finer continent**







TO A LOGGER

## "CAT-SKINNER" means A TRACTOR OPERATOR

Powerful tractors have replaced Paul Bunyan's famous blue ox in modern logging operations. In the language of loggers, the tractor's operator is a "cat-skinner"!



TO A BUSINESS MAN

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She found three urgent customers and the stockings unmarked. Below, an employer checks student's personality, clothing



## Behind the Counter They Go to College

By EDWARD F. MASON

**A** CLERK who pleases intelligent customers; a foreman who can understand instructions and write reports; a receptionist who inspires confidence in the office; a machinist who treats his tools like a gentleman.

Where can business find such treasures? Shall executives try to train them or shall they depend on the educational system?

One solution is for business to share in the training with an educational institution supervising. Theory and principles are presented in classes, but experience is gained on the job.

The junior colleges especially are offering this training and they expect to offer it increasingly in the future. The junior colleges deal with students who are through high school, still too young to be attractive to employers without further training, and, in most cases, will not go to college.

Suppose a young man in San Francisco wants to become a hotel clerk—eventually, perhaps, a manager. He could never, in a classroom, become even a clerk. Nor could he, even as an alert bellboy, without someone's instruction, master the intricacies of the business.

But, in San Francisco Junior College, he can take a course that is devoted to the hotel and restaurant business, and what he learns in class will be pointed up by experience in a San Francisco hotel.

The theoretical and practical are combined. Classroom discussions cover such topics as the planning and maintenance of the hotel and restaurant plant, heating, refrigeration, ventilation, dining room and kitchen design, the purchase, preparation and serving of foods, meat cutting, stewarding, accounting, the front office, advertising, public relations, public speaking, correspondence, taxation, social security, welfare and compensation laws, innkeepers' law, insurance, credits, and personnel administration.

Practical training is sponsored by an advisory committee representing the California Northern Hotel Association, the San Francisco Hotel Association, the San Fran-





# Keep Your Balance with a **CHEVROLET**

CHEVROLET MOTOR DIVISION, General Motors Sales Corporation, DETROIT, MICHIGAN





Actual experience in meeting and satisfying guests is part of course for embryo hotel men. Inset, a student gains practical knowledge of the storeroom and restaurant backstage



cisco Restaurant Association, the Cooks' Association of the Pacific Coast, and others. In the hotels and restaurants the student gains experience in buying, stewarding, kitchen, auditing, front office, advertising and promotion, credit, dining room, housekeeping, and engineering.

A high point each spring is the luncheon for the California Northern Hotel Association. This luncheon is planned, prepared and served entirely by the students who may, at the same time, be serving 3,000 high school students in the two cafeterias of which they have charge.

Five junior colleges of the country offer two-year courses in hotel and restaurant management.

There are altogether 610 junior colleges in the United States, with 236,162 students. About half of these are offering two year courses that, for the most part, are intended to prepare the student to get a job.

Business education is given by 286 junior colleges on this basis. There are

204 courses in general business, 202 secretarial courses, 34 in salesmanship, 12 in insurance, 27 in accounting, 28 in merchandising and six in banking and finance.

#### Cooperation is country wide

COMPANIES from the Atlantic to the Pacific participate. In Hartford, Conn., 29 stores and factories cooperate with Hillyer Junior College. Young women as well as young men are students. Some gain sales experience in retail stores. Others serve business firms as stenographers and secretaries.

Under the Hillyer plan, each student alternates eight weeks of employment with eight weeks of class work. While on the job, he draws wages, on the "earn as you learn" principle. At the end of the period he trades places with another student, with whom he is paired. In two years, each student spends six eight-week periods on the job and six similar periods in classes.

Take the case of Benjamin A. For-

nonzini, Jr., of Hartford, a Hillyer sophomore. Fornonzini was employed for a year on general repair and maintenance work around the plant of the Allen Manufacturing Company. At the end of his first year he was promoted to operation of automatic machines, of which the Allen company uses many. In two years he will have had opportunity to learn much concerning general factory maintenance and operation. More important, he will have learned about the people with whom he works and the qualities needed for success in the industrial field. He will have gained also two years of college education.

Retail stores of Boston and other cities provide opportunities as saleswomen for students of Lasell Junior College, a women's college in suburban Auburndale. Each student in retail training must work in a store during the three weeks before Christmas and at least eight Saturdays in the fall and spring.

She must meet the store's employment director for an interview and must measure up to the store's personnel requirements to enter the course.

During the 1940 Christmas season, 75 Lasell girls were thus employed in ten stores in Boston, four in New York, and others in Hartford, Cleveland, Cincinnati, Detroit, Newark, Worcester, Providence, Paterson, White Plains, Albany and Waterbury.

Betty Bell, a Lasell student tells some of their experiences:

Imagine one poor salesgirl's surprise when, after combing the store for a certain dress to satisfy one woman's whims, she





## Symbols of National Defense

A bristling sixteen-inch gun guarding our coastline . . .

—and a small microscope protecting the purity of our food . . .

**BOTH** are important symbols of national defense.

Helping to safeguard the nation's health are scores of Sealtest Laboratories. In the plants of Sealtest milk and ice cream companies, "Men in White" are constantly testing, checking and supervising the purity of these vital foods.

They bring to *your* community—to the milk *your* children drink . . . the ice cream *your* family eats—the *combined* skill and experience of the entire Sealtest Laboratory System.

This added care, this complete laboratory supervision, costs you not one penny more. So—as a measure of *health defense*, why not look for the red-and-white Sealtest Symbol of quality, purity and wholesomeness when you buy milk, ice cream and other dairy products?



THIS SYMBOL IDENTIFIES MILK, ICE CREAM AND OTHER DAIRY PRODUCTS PRODUCED UNDER THE SUPERVISION OF THE SEALTEST SYSTEM OF LABORATORY PROTECTION

Tune in the Rudy Vallee—Sealtest Program, Thursdays at 10 P.M., e.d.t., NBC Red Network  
Sealtest, Inc. and its member-companies are subsidiaries of National Dairy Products Corporation



discovered that the dress was advertised Sept. 21, 1937!

Then there was the girl who came back after lunch and, upon being asked about a new cologne, offered to give her customer a sample. She didn't know that the atomizer was broken and that the perfume was going all over the woman's face, coat, and dress!

And there was the one who found herself in a sea of unmarked stockings and three hurried customers, all in the first five minutes.

Another surprise was the customer who gave the nightgown size when trying to find the right sweater for a Christmas gift. At the same counter a vase was smashed as the shopper wanted her armful of packages wrapped in with one little sweater.

Then there was the deaf and dumb woman who shopped every day; she carried a pencil and paper, and became one of the girl's regular customers. Another day three bearded ladies were customers.

Another girl was a heroine as she found a shoplifter, who was one of the regular employees, at that.

In the nature of thrills was the day Nancy Carroll came into the store and headed for a poor little Lasellite; both came through nicely! Also honored was our classmate who was asked to model at an employees' fashion show.

Each senior girl at Garland School, Boston, has the opportunity of a month of experience in her chosen field in the half-year before she graduates. These opportunities are made possible by a large group of cooperating agencies, offering experience in salesmanship, fine arts, museum work, interior decorating, newspaper work, child care,

hotel service, catering, and the like.

In Long Beach, Calif., merchants have introduced a new variant into the training schedule. They wait until the student has completed a commercial course and then give a year's experience in a store.

Having completed his commercial or sales course, the student presents his record, letters from instructors, and application, at the retailer's office. If accepted, he begins "going to school on the job." Larger stores often have the student work in a different department each month. He gains valuable experience, earns a small salary and, by the close of the year, has worked himself into a permanent job.

### Combine learning and selling

STORES, filling stations, and other selling agencies in Glendale, Calif., provide jobs for ten hours a week for students in the Glendale Junior College course in retail selling. This course proceeds on the assumption that "The ideal way for a sales person to develop skill after he has studied the theory of selling is to work at an actual selling job." The student spends part of his time in

classes and part putting theory in practice.

Members of this class have prepared a manual on selling, which has been published through the aid of the Glendale Junior Chamber of Commerce.

Business houses at Tonkawa, Okla., provide opportunity for students at the University Preparatory School and Junior College to work 15 hours a week at retail selling.

At Pasadena Junior College, Calif., lectures by business men and experts in various fields are a part of the regular training course. Topics discussed include "Opportunities in Department Stores," "What the Insurance Field Offers to Youth," "What May Young People Find in the Field of Accounting," and "Streamlining Credits and Collections." Leaders in the sales field demonstrate commercial products.

In addition to these special lecturers, a group of business men has formed an advisory council which helps the school on questions of course content, equipment and training methods. These and other business firms also give Pasadena students opportunities for training.

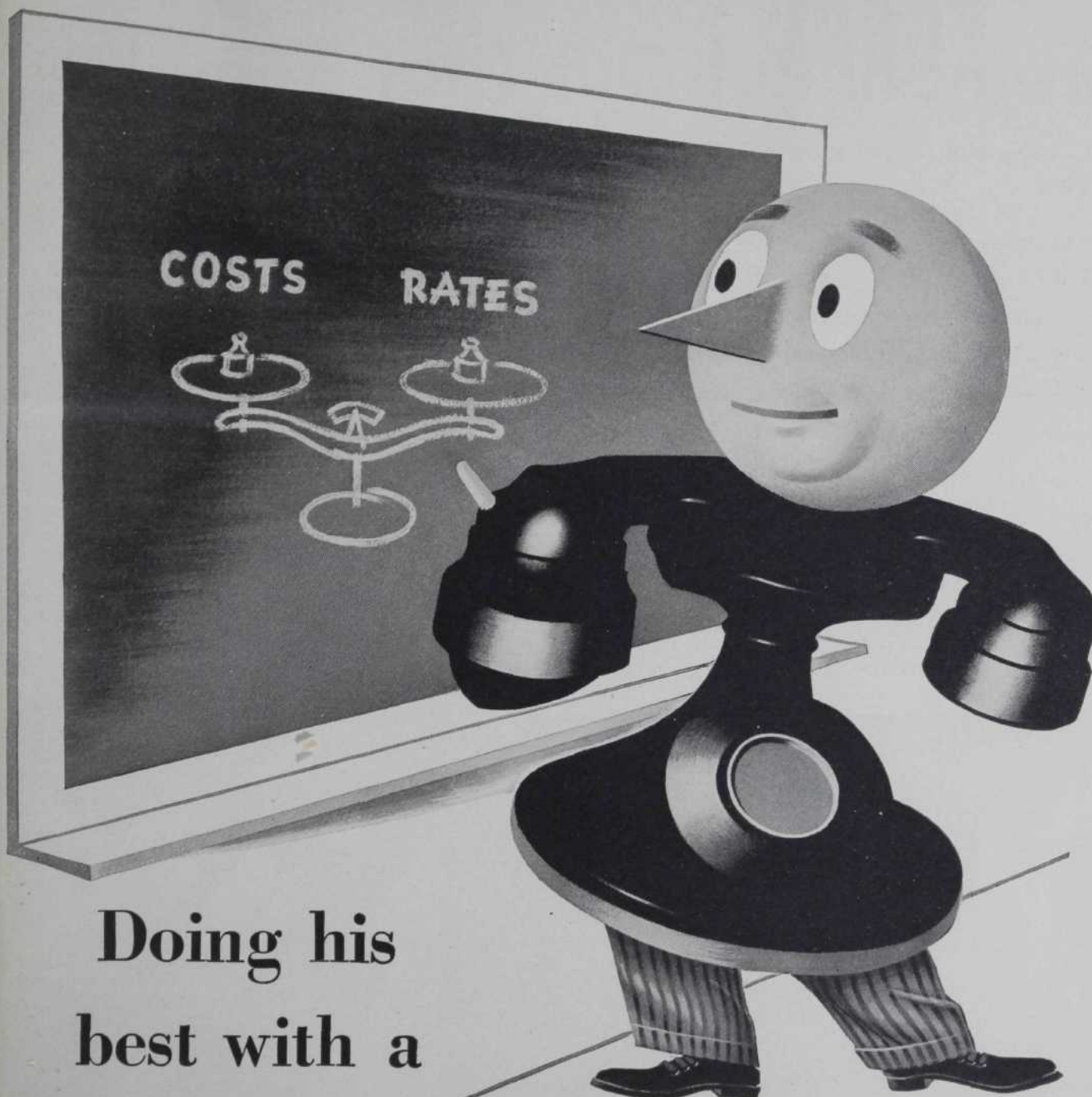
Conducting the course in merchandis-

(Continued on page 102)

Students learned house building by building one under experts. Inset, tool operation is learned in a shop and money earned as well







## Doing his best with a tough job

The hardest job of the Bell System is to give you more and better telephone service and yet keep rates low. It isn't easy to keep those two things in balance. Increasing costs and taxes make it difficult.

But there is no end to trying. There is never any letting up in the search for a better, more economical way. All along the line, the Bell System believes in economy in business housekeeping. That is part of its obligation to the public.

BELL TELEPHONE SYSTEM



Listen to "The Telephone Hour" every Monday. (N. B. C. Red Network, 8 P. M., Eastern Daylight Saving Time.)



# Fireman! Put Out That Bomb!

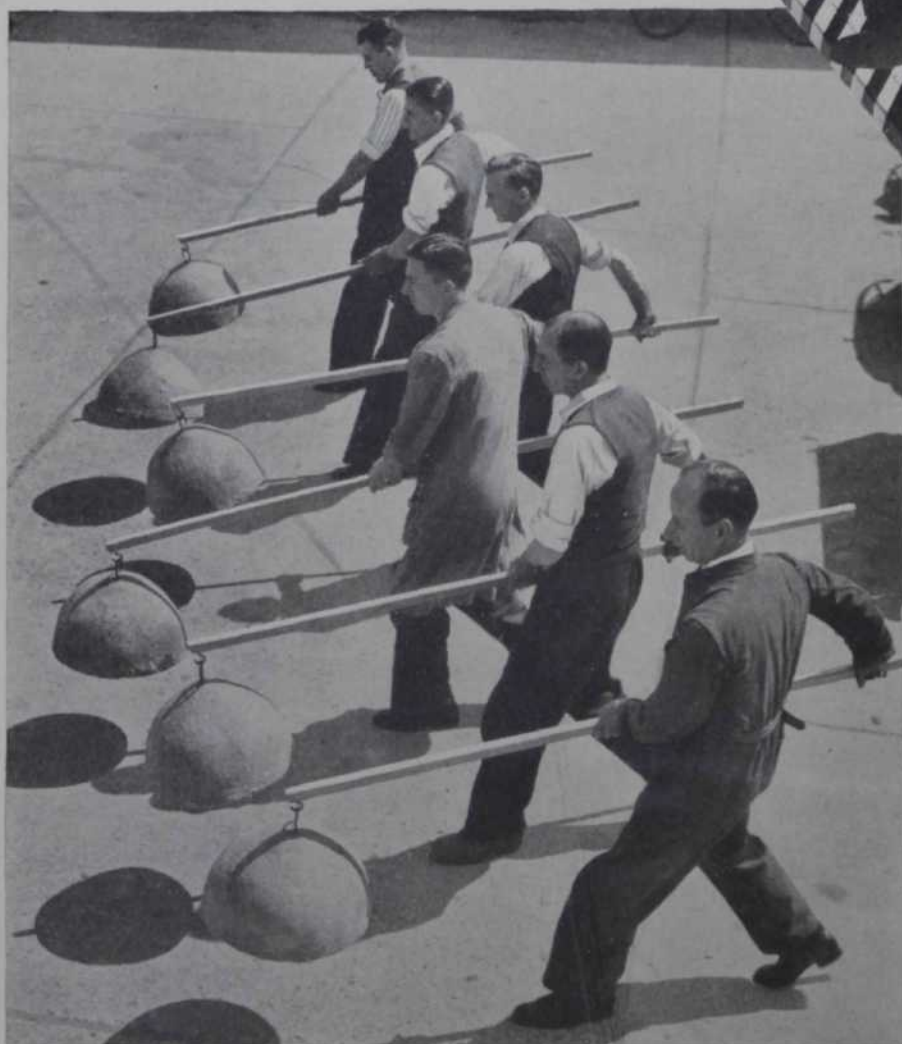
By PAUL W. KEARNEY

**ENGLISH FIRE** fighters save country from mortal wound. More than 200 killed and 1,800 wounded in two months. Americans learn by their experience

**I**N NEW YORK, where three fire department officers recently returned after six months' service with the London Fire Brigade, Commissioner John J. McElligott has organized a volunteer force to supplement the regular force in a war emergency. Having completed an 18 months' "disaster survey"



Savannah firemen use white markings to make men and apparatus more visible at night



Long handled snuffers can be placed over a bomb by anyone. They have wire-mesh frame sprayed with asbestos fiber

of the community, Commissioner McElligott has now inaugurated a special school in which the whole department, in classes of 100 men a day, will take an intensified course in wartime problems.

In Boston, Fire Chief S. J. Pope has planned a volunteer auxiliary corps to include several thousand men. As far back as last summer 450 members received the regular firemen's 60 hours of drill and 300 others were given rudimentary training to fit them for handling local outbreaks. Boston has even mounted anti-aircraft guns on several pumpers so that firemen can learn how to handle this ultra-modern piece of fire fighting equipment.

Oklahoma City; Portland, Ore.; Los Angeles; Cleveland and other cities have similar programs. Connecticut, Massachusetts and other states have developed plans



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BETTER ADVERTISING-SALES PROMOTION METHODS  
BETTER ORDER-HANDLING METHODS  
BETTER PRODUCTION CONTROL METHODS  
BETTER STOCK-KEEPING METHODS  
BETTER INVENTORY CONTROL METHODS  
BETTER SHIPPING METHODS  
BETTER PAYROLL METHODS  
BETTER COLLECTING METHODS  
BETTER ROUTING METHODS  
BETTER MAILING METHODS  
BETTER DIVIDEND METHODS

**in action**

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★ In thousands of business concerns of every kind and size, IDEAS that decrease expense and increase profits are being put into ACTION by Addressograph Methods.

Money is saved through simplification of procedures. Expense is reduced through elimination of errors, delays and waste.

In every department, Addressograph

handles the important jobs with speed, accuracy and economy.

The Addressograph Representative near you will be glad to explain how easily these Modern Methods can be applied in your business. Call ADDRESSOGRAPH SALES AGENCY (listed in principal city telephone books). If you prefer, write to

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1935-1936 BUREAU OF BUSINESS

**PROVED IDEAS IN ACTION**—in all departments of business—is the money-making function of Modern Addressograph Methods



for mutual aid in case of emergency. In Washington, a special committee of the International Association of Fire Chiefs has been working for months with the War Department on a fire defense program applicable to all communities.

These men aren't Nervous Nellies. They are merely capitalizing on the lesson of the Battle of Britain which to date has been fought entirely by the Air Corps and the firemen.

Of necessity, millions of British soldiers mark time while 300,000 blaze beaters are writing one of history's most stirring chapters. Were it not for their stark heroism, England would have been mortally wounded in the first fortnight of the siege.

This epic valor, however, tends to becloud the basic issue since it understandably dominates the reactions of observers. Most correspondents' accounts leave the impression that the A.F.S. was an overnight wonder. But the Riverdale Committee, father of the Auxiliary Fire Service, began organizing the brigade in 1936 after an 11-month survey of conditions; started recruiting in July, 1938; and, when war was declared, had 32,000 trained auxiliary men in London alone.

The immediate lesson for us is that, however deficient Britain may have been elsewhere, *her fire defenses were*

*beautifully organized long before the emergency.*

How thoroughly can only be appreciated by realizing that London's normal Fire Brigade totaled about 2,000 men in 60 stations—less than one-quarter the man power of the New York Fire Department. In peacetime London averaged something more than 5,000 fires a year. When the A.F.S. fought 20,000 outbreaks in September and October, it had done a normal four years' work in 60 days! In that brief period more than 200 firemen were killed and 1,800 injured in action—as many casualties as the Brigade has suffered in the past century.

### New methods and equipment

SOME of the random details sharpen the broad picture of the wartime fire problem. London, for example, had more than 5,000,000 feet of hose when hostilities began. In addition to an unknown quantity of domestic manufacture, they have bought more than 7,000,000 feet additional from the United States.

Some 3,000 trailer pumps of 1,000 gallon capacity were added to the regular equipment.

Since London uses only strained sewer water for its regular fire service, scores of reservoirs had to be built, above and underground, to guarantee a water supply in case of main breakage. Swimming pools, park lakes, fish ponds, and every other conceivable source of water had to be piped into the fire service.

Hose is left attached to street hydrants in the high-hazard areas for immediate use, and methods were perfected which now permit the stretching of hose at 20 miles an hour with pumps connected in relays.

More than 750,000 "stirrup pumps" have been distributed to householders throughout England and 600 Fire Authorities instruct the population in groups of four or five in the proper handling of these appliances on incendiary bombs.

The high ratio of roof fires from incendiary bombs made it necessary to augment the Brigade's resources in aerial ladders. The supply of tools for demolition and rescue work also presented an acute problem.

It is now routine for London firemen to extinguish 60 to 100 outbreaks in two hours with as many as 500 men working on one blaze. Indeed, on De-



Boston firemen are trained in anti-aircraft gunnery with guns mounted on a pumper

ACME





BRITISH COMBINE

A class of women vigilance corps watchers use stirrup pump to deal with an incendiary bomb

cember 30, more than 400 fires were going at one time in the Old City. Personnel replacement is a problem since the men are frequently machine-gunned or bombed while at work in addition to being knocked out by sheer fatigue.

The companies must be well spotted throughout the city to minimize their runs since apparatus must drive without headlights through pitch-black streets regardless of bomb craters and debris.

Here, hurriedly, are a few things which must be anticipated in wartime fire fighting. The whole problem calls for intensive planning and far-sighted organization on a vastly different scale than for peacetime operations. The fact that some cities have already gone beyond the paper phase of this preparation should stimulate others to check on their resources and liabilities.

### We could be bombed

TRADITIONALLY protected by two oceans from foreign invasion, we are prone to forget that the shortest air route from Tokio to New York does not pass over the Pacific Ocean at any point—or that the jump from Greenland to Detroit is less than 2000 miles with only 500 over water. Since that compact northeastern triangle, bounded by Boston, Wilmington and Pittsburgh, holds some 60 per cent of our industries, speculations such as these become less academic.

(Continued on page 134)



BRITISH COMBINE

A lady warden in London places a sand bag in convenient position for use of firemen in combating incendiary bombs



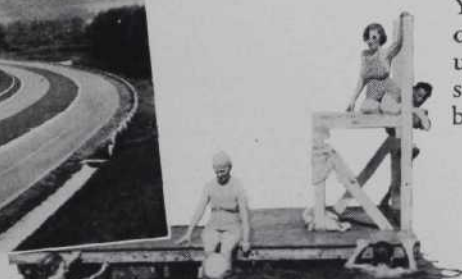




# CANADA AT WAR

*is still the*  
**GREATEST PLAYGROUND IN THE WORLD**

**14 Million\* Americans**  
*Say so!*



DON'T take our word for the merits of Canadian vacations or for the way we treat you. Ask any one of the 14,000,000\* Americans who visited us last year. Perhaps one of them was your next-door neighbour. Ask *him*.

He will soon tell you how easy it is to cross the border; how courteously you are received everywhere; how free you are to move about; how willingly banks, hotels and stores pay the premium on American currency; how easy it is to leave Canada when you please.

And he'll tell you about the wonderful vacationland this great north country really is; how cool and bracing, with fine modern highways stretching in all directions, accommodations to suit all budgets and unlimited scope for every kind of holiday.

Yes, Canada welcomes you as never before. She offers you the freedom of her towering mountains, untracked forests, sparkling lakelands, silver seashores, brilliant cities, lovely towns and of all her broad historic countryside.

\*Over 14,100,000 United States citizens visited Canada in 1940. This tremendous number, over 10% of the total U.S. population, does not include the many millions who came to Canada for less than 48 hours; it includes only those who stayed in Canada for more than two days.

## YOUR CANADIAN VACATION WILL DO DOUBLE DUTY !

Your Canadian vacation will do far more than give you a glorious time. *It will help the fight for freedom.* For the American dollars you spend in Canada will all go back to the United States in payment for war supplies which Canada is buying there in tremendous quantities.

**IT IS JUST AS EASY TO RETURN\* TO THE  
UNITED STATES AS IT IS TO ENTER CANADA**

WAS IT EASY TO  
RETURN TO THE U.S.A. ?

NO TROUBLE  
AT ALL MY DEAR !

WE SIMPLY SHOWED OUR  
SOCIAL SECURITY CARDS TO  
THE IMMIGRATION OFFICER,  
BUT HE SAID ALMOST ANY  
IDENTIFICATION WOULD DO !

WELL, IF IT'S THAT EASY, WE'LL  
GO TO CANADA THIS YEAR  
...IT'S A TRIP I'VE  
ALWAYS WANTED !



☆ The U.S. Department of State, Washington, suggests U.S. citizens carry some documents of identification such as old passports, birth or baptismal certificates, naturalization certificates, club cards, tax bills, or similar papers.

## CANADIAN GOVERNMENT TRAVEL BUREAU OTTAWA-CANADA CD-141

☐ Please send me free copy of your 60-page illustrated book about vacationing in Canada.

☐ Please send me information on.....

district, province of.....

Name.....

Address.....

State.....



shaped freighters may be turned out at the rate of one a day without dislocating labor conditions.

## Giving the Boys a Break

IN six months a \$44,000,000 ordnance plant was completed at Radford, Va., 90 days ahead of schedule. At the dedication ceremonies the only names mentioned were those of politicians and army officers. No one spoke of Mason and Hanger, contractors, who had done the job. This paragraph is not to be taken as a precedent. Just a querulous note.

## New Source of Revenue

STUDIES are now being made of the practicability of framing an Act escheating to the federal Government certain dormant bank accounts, stocks and bonds seemingly forgotten by their owners, and other assets of the sort. The enterprisers say it can be done to a total of many million annual dollars, but as yet they have not established the formula. Every obtainable penny is to be taken in the future.

## Civil Service Works This Way

NON-CIVIL service applicants for jobs under the Government in certain categories may now be accepted by the War Department. Then the Civil Service must pass on their qualifications. If the W.D. still wants them, they will then be employed but they will not be in Civil Service. Recently one man applied for a \$4,000 position but, before the red tape had been unsnarled, he was offered private employment at \$15,000. Naturally, he took the job and the Government was out a good man.

## John L. Lewis in 1944

AFTER having been briefly shaken, labor specialists are again reporting that John L. Lewis is a pretty smart man. They have an idea that he stepped out of C.I.O. because he saw it heading for trouble with the rest of the country. If and when the C.I.O. takes a licking, he will resume its leadership as a conservative. Meanwhile his faithful United Mine Workers are his ace in the hole. He thinks that, by 1944, he will be in a strong position politically. Maybe heading for a vice presidential nomination.

## Congress Is Asking "Why?"

IT is likely there will be a series of congressional inquiries into almost everything before long. The Administration was given every dollar it asked for defense purposes, but questions are being asked about the manner in which some of the money is being spent. There are, for instance, millions of acres of arid and untillable land in the West which should be a perfect field for military maneuvering. For years Army chiefs have complained that they have had no opportunity to handle large masses of men in battle practice, and without that practice they frankly admitted they could not be up to date. Now they have their large masses of men and are buying arable land in the East on which to maneuver them. Each such acre ceases to pay taxes. Some congressmen want to know more.

## Hard to Beat the 33

SENATOR Byrd of Virginia is still trying to reduce the 33 independent government corporations to some sort of fiscal order. To a man on the sidelines it looks

as though he no longer hopes that their extravagances may be controlled, but only that they may be reported. The situation is so complicated that even to discover what they are doing may force the rewriting of the entire Budget Accounting Act.

## When Baruch Got Tough

MAYBE an explanation of the fact that Bernard Baruch has not been called in to do the job of coordinating war business which he did so well in 1918 may be found in a little incident. In that year he found the British merchants were robbing—that's the word he used—the American Government on its purchases of jute. It was at this time that we were spending billions on the war.

"I will depreciate the silver currency of India," said Baruch. "That's where the jute comes from."

The British said he was a heartless fiend. President Wilson backed him. The British cut the price of jute to the proper level. They said in effect that he could not blame them for trying. Baruch would handle war business in the same way if he had the job today.

"Not too much sentiment," says he.

## Don't Stir "Them" Up

THE man who knows most about the manner in which the utilities are fitting into the defense program said the public would be surprised if it knew.

"I'm surprised myself," he said. "In spite of all the woo-hooing there will be no shortage of power. There will not be a minute from now until the emergency ends that the utilities will not be able to produce more power than industry can call for."

He would not go into definite figures. "They" would be sore, he said. "They" would make trouble for the utilities, he said. He had said too much already. He would be obliged if the whole talk were forgotten.

## Report on Rookie Lingerie

THE man who had been selling cotton underwear to the New Army was an enthusiast.

"Boy, is it good?" he almost shouted to a group of business men listening to him. "Let me tell you. I'll bet \$100—lay it right on the line—that there isn't a man in this group wears as fine underwear as the soldiers do."

No one would bet against a sure thing.

## War Was Never Like This

EUROPEAN military men said after World War One that, if we had started on the same date Europe did in 1914, we would have spent ourselves out of the war long before the end finally came.

Not even your people could have stood up under that terrible extravagance.

It would be interesting to hear their reactions on the New Army of 1941. The khaki uniforms are partly silk, each man has four pairs of shoes, the blankets are pure wool, the mattresses are good enough for three dollar hotels, the men eat four times as much canned goods as they do at home, and the kitchen police peel spuds and wash dishes with power machines. This leads up to Adolph A. Berle.

## Berle Is a Boon-Spreader

HE is not only the Assistant Secretary of State, but he is as freehanded as Captain Morgan's men after a lucky cruise in the Spanish Main. According to the



"SMOOTH AS STILL WATER"

# Levelcoat\*

## PRINTING PAPERS

Providing all the beauty  
of costly printing papers at the price  
of ordinary paper!

NO BUYER of printing can afford to overlook the big news about *Levelcoat*.\* Here are printing papers which have been made super-smooth by new and exclusive coating processes—beautiful, rich-appearing papers, paving the way for the finest printing results. At the same time—thanks to Kimberly-Clark's manufacturing economies—important savings are now available to every company using printing.

If you have been buying highest quality printing, you can now buy more printing at the same price by specifying *Levelcoat* papers. *Levelcoat* provides all the beauty of costly printing papers at the price of ordinary paper.

If you have a small printing budget which has limited you to not-so-good appearing catalogs, circulars and brochures, you now can step-up to *Levelcoat* quality paper at little, if any, extra cost, and benefit by a mighty respectable job!

**Seeing is believing . . .** Ask your printer or paper merchant for samples, or write Kimberly-Clark for proofs of printed results heretofore obtainable only with high-cost printing papers. You'll agree these new papers do most for the money. They are available through your paper merchant. Or, inquire direct.

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### Trufect\*

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Made super-smooth by new, exclusive coating processes. For high-quality printing.

### Kimfect\*

*Levelcoat Paper*

Companion to Trufect at lower cost. For use where quality remains a factor, but less exacting printed results demanded.

### Multifect\*

*Levelcoat Paper*

Where economy counts in volume printing, this grade does a splendid job.

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Associated Press, which is a sober news association given to extravagance only in checking up on a news story, Mr. Berle would share the wealth with every one. The departed Huey Long never had such an inspiration. Thirty Dollars on Thursday isn't peanut money. Listen:

No one seriously believes that there should be any permanent difference between the well-being of any one country and that of any other. Our task must be the removal of artificial advantages, or, if you like, the sharing of resources. . . .

Perhaps the Assistant Secretary of State was just singing in his bath. But that must sound mighty sweet to some of the good neighbors.

## It Was Always That Way

SIMON LAKE was the first man to make a practicable instrument out of the submarine. In the course of the process he came to Washington and called on Admirals;

"The damn thing won't work," said the first of them.

"But it has worked. I'll take you down to the sea bottom and let you see for yourself."

"Let me tell you, my Good Man," said the Admiral. "You can't make a fool of me."

So Russia bought the first submarine, just as France bought the first airplane, just as England bought the Hotchkiss and Lewis machine guns. Patent lawyers say the old rule is in operation in Washington today. The total emphasis is on production. No one will stop to look at the one little dido that may knock the products of all today's assembly lines into trash.

## Violence with a Pure Heart

EVEN as late as two years ago the courts still looked down on men who socked other men to persuade them they had no right to work. Judge Murray Hulbert fined Local 807 of the Teamsters' Union \$10,000 and levied prison terms up to two years on members convicted of violations of the antitrust and antiracketeering laws. Judge Learned Hand of the U. S. Circuit Court of Appeals in New York has reversed that decision. A free translation of Judge Hand's opinion is that, not the sock but the spirit in which you sling it, is the offense. The use of violence may be forgiven by the law "to secure work or higher pay, even to the domination of an entire industry" although the same violence employed in less praiseworthy activities should be punished. Yet a goon can lift as tough a lump on a stubborn head as any stick-up man. . .

## Carrying Purity Too Far

WHEN the Morgan Stanley case reaches the courts the shooting should be something to listen to. Both Morgan and Stanley are reputable gentlemen. The worst that may be said against them is that they belong to clans some New Dealers do not like. They sold an issue of bonds for the Electric Power Co., earned a commission of \$100,000 or such a matter, and got their principals the cheapest money in five years.

"But we must impound your commission," said the S.E.C. "You have done nothing wrong that we have been able to find. We do not charge that you have done anything wrong. But you know a lot of the wicked rich, and no doubt you have married into gold plated families and so you had a chance to pull off some fancy finagling if you had wanted to do so. So you do not get the money."

No one can tell nowadays how a court is going to jump, but there is a fair chance that, before that case reaches the Supreme Court, at least one judge will give the S.E.C. a beating.

## Marvels from the T.N.E.C.

THE T.N.E.C.—Anti Monopoly Committee—is filing its \$1,100,000 report by gross weights. So far as can be determined at this time this is the most extraordinary failure of the past eight years. Its 12 members almost never agreed on anything. Perhaps they never agreed. No report was made on some of the topics named for examination in the original resolution. Others were reported on that were not named. Some of the recommendations ran counter to others. Some sections are radical and socialistic and others are conservative in tone. Some sections were released without the benison of the committee but only over the signatures of examiners. The report may have cost the business organizations which were bedevilled by it \$50,000,000. Perhaps more. The general recommendation is that there is too little federal regulation, that a good part of government is foolish and sinful, and that in a really admirable world everything would be better ordered. This is not worth the money to business men who were compelled to neglect their businesses for weeks at a time to dig up information. A congressional inquiry into the T.N.E.C. might be worth while, if thereby rules could be established for the holding of future inquiries.

## Gossip About the Greats

IN 1895 100 economists were employed by Government. Taxes were low and the Treasury was solvent. Now the Government hires 3,000 economists. . . . Nearly 5,000 bills were routed through the Division of Legislative Reference to make sure they did not conflict with the President's program. . . . Reformer Tugwell has a sweet job in Puerto Rico. . . . By a lovely coincidence his wife also has a sweet job on the island. . . . Philip Murray, C.I.O., doesn't like Sidney Hillman of the O.P.M. . . . Hillman likes to hand benefices down to Labor. . . . Murray likes to take them off the body of Industry. . . . Frequently heard opinion is that Justice Frankfurter often steps down from the Supreme Bench to tinker with politics. . . . Said to be perturbed because he has not been able to squeeze Tommy Corcoran into a fat job. . . . Corcoran may yet leave Government flat and go back to New York. . . . Two per cent sales tax likely in 1943. . . . Personal income taxes to go up to pay cost of "our" war. Wage and price controls headed this way. Mandatory if coaxing does not work.

## This Month's Court Calendar

JOHN R. STEELMAN, government's boss conciliator, conciliates up to a point. . . . There he often gets better results by getting tough. . . . No one knows just how much authority Harry Hopkins has in the production set-up. . . . But he has more than any one else. . . . Desperate state of confusion persists, for Hopkins is a sick man and never was an administrator. . . . He has a good many hates, too. . . . Senator McKellar says the "Government spent \$15,000,000 and never found a fruit fly."

*Herbert Corey*



# "How old should they be before they take the car?"

## \$500.00

U. S. SAVINGS BOND  
FOR THE BEST ANSWER  
TO THIS VITAL QUESTION

Lumbermens offers 101 prizes in this big contest—

### FIRST PRIZE

\$500.00 U. S. Savings Bond

### NEXT 10 PRIZES each

\$50.00 U. S. Savings Bond

### NEXT 20 PRIZES each

\$25.00 U. S. Savings Bond

### NEXT 70 PRIZES each

cash \$5.00

You may win one of these grand prizes just by writing a short, simple letter of your opinion of when a boy or girl is old enough to take the family car out alone.



In thousands of homes all over the country this question of boys and girls and cars is one of the most important family decisions ever to be made. How would you answer it? Send your opinion to Lumbermens. You may win one of the 101 prizes for it.

"When are they old enough to drive?"

This is one of the most important issues in American life today. It's talked about on the radio . . . written about in newspapers and magazines . . . discussed by every family where there are young people and cars.

In some states, the law permits a boy or girl of 14 to drive alone. In other states, a youngster must be 15, 16, or 18 before he or she can qualify for a driver's license.

### Not Just Birthdays

But you parents know it's not just the number of birthdays that determines whether or not Betty or Joe is old enough to drive.

And it isn't parents alone who have opinions about this problem. Nearly every motorist has had enough personal experience with young drivers to know how important it is.

You young people yourselves know how much it means to you.

### READ THESE POINTERS

When are young people mature enough . . . physically, mentally, socially, to take on the responsibilities of driving?  
How can you best handle the problems of social pressure—"the girl" and "the bunch"?

What's the best way to train a young driver? How can you best teach him the rules of good driving, the sportsmanship of the road, the traffic regulations of your community, the financial responsibilities imposed on you under the law?

As the leading company in automobile casualty insurance, Lumbermens wants

to know what you parents, motorists, and young people think. The reason is: statistics show that drivers under 20 years of age have by far the highest accident rate of any age group. We feel a direct responsibility to our policyholders, the motorists of America, to make every effort to help solve the young driver problem. Less accidents mean greater savings. Greater savings mean bigger dividends to policyholders.

### Let's Have Your Ideas

Tell us what you think about the problem of youth at the wheel, in your own words. That's all you do. It may bring you a U. S. Savings Bond for \$500.00 or one of 100 other prizes. The major prize winners will have the satisfaction of helping our National Defense while bonds are maturing.

You may approach the problem from any angle you wish—at any length you wish. Sit down right now and write your answer, based on your own experience.

### CONTEST RULES

1. Contest closes June 1, 1941. All entries must be postmarked not later than midnight of that date. Mail your letter to Lumbermens Contest Editors, 215 N. Michigan Ave., Chicago, Ill.
2. Your entry may be as long or as short as you care to make it, but all entries must be written plainly on one side of the paper only. Be sure to sign your entry with your title (Mr., Mrs. or Miss), your given name, middle initial and last name.
3. All entries and ideas therein become the property of Lumbermens Mutual Casualty Company. No entries will be returned.
4. All entries will be judged on originality, uniqueness and aptness of thought. Fancy or decorated entries will not count extra. Duplicate prizes will be awarded in case of a tie. The decision of our judges is final.
5. This contest is open to any resident of the continental United States and Canada except employees of Lumbermens Mutual Casualty Company, its affiliated companies, its advertising agency, and their families. This contest is subject to all Federal, Dominion, state and local regulations.
6. If you want more information about the qualifications of a good driver, the rules of good driving, and the sportsmanship of the road, call the Lumbermens agent in your community. He will be glad to furnish you a copy of our new booklet, "Why Ask for an Accident?", giving complete information on good driving practices. You may use this material and other information obtainable from your local police and traffic safety officials in gathering background information for your entry. But in the end, make your entry *your own* in opinion and in expression. It will be judged on that basis and on no other.

# Lumbermens

## MUTUAL CASUALTY COMPANY

JAMES S. KEMPER, President Home Office: Mutual Insurance Bldg., Chicago  
Operating in New York State as (American) Lumbermens Mutual Casualty Company of Illinois





## HOW EMPLOYEES CAN GET LOANS FOR EMERGENCIES

Do employees ask your company for loans in emergencies? Is it a problem for you to take care of all your workers' needs?

How best to help families worried by expenses too big to be met out of savings or current income has puzzled many executives—and many social scientists. The scientists have sought a solution in the service provided by the modern family finance company. For years they have studied the small borrower's problem from every angle. Their recommendations have guided the lawmakers responsible for modern small loan legislation.

### Money for any worthy purpose

Most industrial states have now passed Small Loan Laws. These laws, written to serve and protect the small borrower—make possible the operation of a company like Household Finance.

At Household Finance the responsible worker can borrow up to \$300 for any worthy purpose. No wage assignment is taken. No endorser is required. The worker obtains money to tide himself over in a simple, private transaction.

### Charges below lawful maximum

A monthly repayment plan helps the borrower to get out of debt without strain or sacrifice. The table below shows sample repayment schedules. Installments include charges at the rate of 2½% per month (less in many territories). These charges are substantially below the maximum allowed by the Small Loan Laws of most states.

#### WHAT BORROWER GETS

	WHAT BORROWER REPAYS MONTHLY				
	2 payments	6 payments	12 payments	16 payments	20 payments
\$ 20	\$ 10.38	\$ 3.63	\$ 1.95		
50	25.94	9.08	4.87		
100	51.88	18.15	9.75	\$ 7.66	\$ 6.41
150	77.82	27.23	14.62	11.49	9.62
200	103.77	36.31	19.50	15.32	12.83
250	129.71	45.39	24.37	19.15	16.04
300	155.65	54.46	29.25	22.98	19.24

Above payments include charges of 2½% per month and based on prompt payment are in effect in seven states. Due to local conditions, rates elsewhere vary slightly.

Borrowers at Household receive help in planning their spending in order to avoid unnecessary debt and get more from their incomes. For this service Household's home economists have published a series of practical booklets on family budgeting and buying. Many schools and colleges use these booklets as study and reference texts. If you employ or supervise men, we would like to send you more information about Household Finance without obligation. Why don't you mail the coupon now?

## HOUSEHOLD FINANCE

*Corporation*  
ESTABLISHED 1878

Headquarters: 919 N. Michigan Ave., Chicago  
One of America's leading family finance organizations, with 292 branches in 193 cities

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919 N. Michigan Ave., Chicago, Ill.

Please tell me more about your loan service for wage earners—without obligation.

Name.....

Address.....

City..... State.....

## The Diesel Comes Down the Road

(Continued from page 32)

drive the piston on its power stroke. In a Diesel engine, oil is the sole source of power. On its downward stroke, the piston draws in a charge of air alone. As it moves upward, it compresses this air. This pressure increases until the temperature of the air is above 1,000 degrees Fahrenheit. At the same time, fuel oil is sprayed into the cylinder. As the oil comes into contact with the air, it ignites, burns, and the expanding gases drive the piston down.

Thus the Diesel automotive engine does away with spark plugs, wires and coils and uses a fuel pump in place of a carburetor. To shut off the motor one needs only to stop the fuel supply to the engine. Gear shifting remains unchanged; a button electrically starts the motor; and, owing to higher torque characteristics, gear ratios may be stepped up. Since oil has a higher flash (ignition) point than gasoline, the fire hazard is reduced. The exhaust, which in a gasoline engine is about three per cent deadly carbon monoxide, in a Diesel is virtually eliminated. Because of the more complete fuel-combustion and lower exhaust temperatures, valve grinding is less frequently needed in Diesel motors. Various structural differences exist of course, but these are the essential Diesel characteristics.

### Used as a stationary engine

COMMERCIAL significance to the Diesel engine in American industry began in 1895 when Adolphus Busch, president of the Anheuser-Busch Company, St. Louis, bought for \$250,000 American patent rights for the advances of that year. Since then the industry has made long strides wherever stationary, cheaply operated, heavy-duty engines were required and electric power was not available. Nor are the opportunities for further advances in heavy-duty plant work approaching the end. Indeed, the Diesel engine is just beginning to explore its possibilities of application.

More significant to our purpose and much shorter is public interest in Diesel engines, dating back to May 26, 1934, when the first Burlington Diesel-powered Zephyr sped from Denver to Chicago at an average speed of 77.6 miles an hour. Almost at once other records were established. Space on trains was booked for months ahead; and, most important from the point of view of the railroad executive, savings up to three-quarters of the fuel cost were possible! People became Diesel-minded. The engine makers took advantage of this public interest to invade the commercial trucking market. That this is now becoming possible, after more than a quarter of a century in which the Diesel engine had seemed to be stymied in the heavy-duty field, is attributed to five major factors—all of recent origin:

1. Advances in metallurgy, making possible high-strength alloys resulting in size and weight reduction.

2. Advances in mass-production methods.

3. Advances in tooling, making possible more accurately machined parts.

4. Advances in fuel-injecting systems.

5. Advances in providing better methods of lubrication.

The significance of these combined factors is evident when one considers that, less than 15 years ago, high-grade Diesel engines for marine and plant work cost about 100 times as much as gasoline-engines for the same kind of work. Today, the prices are from five to ten times those of gasoline engines. This difference in first cost is rapidly being narrowed and, Diesel boosters argue, is even now more than made up once the Diesel is placed in service.

### Cuts operating costs

CHEAPER operation is easily demonstrable. The recent case of the Amsterdam-Despatch Company is illustrative. Operating between Amsterdam (upper New York) and Philadelphia, a distance of 275 miles, running on a ten-hour schedule over hilly country, the company's recently acquired Mack tractor-trailer driven by a 130-horsepower, six-cylinder Mack-Lanova Diesel engine has travelled more than 60,000 miles without repairs. Comparisons of the fuel-consumption of the Diesel truck with that of the gasoline-powered trucks in this fleet reveal that the Diesel is saving the company \$14 a round trip in fuel expenses. Multiply this figure by 200 (average number of annual trips) and you get an amazing result! (Low grade fuel oil was figured for this region at six cents a gallon, gasoline at 15 cents a gallon.) Reported in *Diesel Power*, a mileage survey for the company disclosed:

On identical service around the city, the gas trailers average two miles a gallon of gasoline while the Diesel averages four-and-one-half miles a gallon of the lower-cost fuel oil. On the long hauls, a comparison between the two types of units shows an average fuel consumption of six-and-one-half miles a gallon for the Diesel and three miles a gallon for the gas units, under similar operating conditions.

Another recent record typical of Diesel performance comes from the files of the W. D. Cochran Freight Lines, operating from Iron Mountain, Mich. Of 14 trucks and 11 tractor-trailers, eight of the latter group were GMC Diesel-powered. Figures reveal that the lugging capability of the Diesels and virtual absence of gear shifting is saving the company 15 minutes on the 100-mile run to Green Bay and, on the more hilly 135-mile run to Ironwood, about one hour.

Monthly summaries checked for accuracy with individual day records disclosed that, over the same grade, Diesels were averaging 8.7 miles a gallon, the gasoline engines 4.4 miles a gallon. Breaking the summary into its component parts disclosed that the Diesels





## Mrs. Taxi-Driver

( A story of day-to-day progress in automotive research )

THERE'S no meter on her "cab," but she has plenty of regular customers. She is on call for trips to school, store, station and a dozen other places. Her children and her neighbors and their children are her "fares." She drives more miles than her husband—for the "taxi service" of the American housewife is a large part of her life.

Since women spend so much of their time behind the wheels of automobiles, they exert a strong influence upon trends in automotive design. Engineers strive not only to make cars more powerful and reliable, but to make them more beautiful, more comfortable, easier to drive. One has only to compare the present-day automobile with the car of ten years ago to realize the amazing progress that has been made.

But what of the next ten years? The

engineers of the automotive and petroleum industries look forward to even greater progress than we have seen in the past decade. Progress will be accelerated because the technical men of both industries realize that the problems of engine, engine parts and fuel improvements are inseparable and that they must be solved by cooperative research effort.

To the solution of these problems Ethyl is providing both product and service. Our product, anti-knock fluid containing tetraethyl lead, is used by oil refiners to raise the anti-knock quality (octane number) of gasoline. Ethyl's research workers are cooperating with automotive engineers in steps to take advantage of better fuel. Our research labora-

tories in Detroit and San Bernardino are helping to coordinate lines of research engaged in by the technical men of both industries. And our field engineers are offering to commercial users of fuels and engines the practical application of the data we have developed.

The public benefits by every improvement in automobiles, trucks, buses, tractors and airplanes. Thus we believe that by making our service available to the executives and technologists of the automotive and petroleum industries we are serving "everybody."



**ETHYL GASOLINE  
CORPORATION**

Chrysler Bldg., New York, N. Y.



NATIONAL DEFENSE AGAINST FIGURE ERRORS

# MARCHANT SMASHES THE



## BOTTLE-NECK ...of Figure-work Production!

**No Pre-Conditioning Necessary!**

**No Change-Over from One Type  
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Standardize on MARCHANT—and you'll break the "bottle-neck" in figure production. No more delays... no slow-downs... no jams.

Instantly, and at will, you can intermingle addition, division, subtraction, multiplication—speeding and simplifying the big jobs as well as the little jobs of figuring.

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operated 52,924 miles. With the gasoline engines averaging 4.4 miles a gallon, the consumption of fuel would have been 12,028 gallons. Priced at 14 cents a gallon, the fuel cost would thus have been \$1,683.92. Actually, the company burned only 6,080 gallons of Diesel fuel, at ten cents a gallon—total cost, \$608, or a net saving of \$1,075.92!

Automotive Diesel engine manufacturers are not depending on fuel economy as a selling point, however. Many manufacturers claim twice the power output per fuel gallon of their products over that of the average four-cycle gasoline engine, with the same cubic inches displacement.

Absence of road-repair delays, owing to the inherent simplicity of Diesel engine construction; speedier schedules because of less frequent gear shifting and faster acceleration, driver comfort, and removal of the hazards of carbon monoxide poisoning and fire—all these are Diesel selling points.

### Solving the service problem

MOST companies now claim to have overcome one of the main obstacles that hitherto had retarded rapid expansion—lack of repair service. All companies now keep ample stocks of replacement parts on hand.

Cummins Engine Company offers, with the purchase of any truck powered by its product, to train the present mechanical force in the rudiments of servicing Diesel engines. General Motors Truck and Coach (the Yellow Truck and Coach Manufacturing Company) supplies to mechanics an operating manual as a guide to making inspections and simple adjustments.

Caterpillar has 212 established distributorships at strategic points in this country and Canada. Hercules Motors Corporation, whose Diesel engines were chosen for the nation's first fleet operation of oil-powered units for passenger transportation, is also well fitted to render convenient service.

Delivered to fleet operators as "packaged power," Diesel replacement engines are now available to convert gasoline-motored trucks into oil-powered units. Their installation is accomplished with only minor changes in the chassis.

While it was once true that most Diesel-powered trucks were those in which engines had been replaced, the trend is now reversing. Today the number of trucks powered with Diesels at the time of purchase is about 50-50 with engine replacements going down.

If light-weight, high-speed oil engines are rapidly becoming entrenched in the commercial trucking field, and are at last finding a niche in the light-haul market, the inroad of heavier units in the bus field is today well secured.

One bus operator of 150 Diesel-electrics states that, in the future, his purchases will be only Diesels, though he complains of the high first cost. Other operators agree that Diesel engines are superior in operating performance, public preference, drivers' preference, mechanics' preference, fuel and lubricating consumption and maintenance cost!

It is sometimes said that discrimina-

tion by states against the oil-powered vehicle is cutting down Diesel advantages in the fuel-economy picture. This is only partly true, and can be shown to be an unimportant argument. In the first place, there is today no federal tax on Diesel fuel.

About three-quarters of the states tax Diesel fuel for trucks—on a gallonage basis at approximately the same rate as gasoline. Some states have levied license fees for Diesel trucks.

But, because where these license fees are charged, no gallonage fuel tax exists, Diesels really come out better than would be expected.

In spite of the comparative infancy of Diesel-development on the highways, the procurement-problem of fuel oils suitable for best operation is rapidly disappearing. Fuel service on the West Coast, where relaxed tonnage restrictions and steep grades have by now well established the Diesel truck in commercial transport life, is highly developed, and the number of fuel stations on primary thoroughfares for cross-country runs is mounting fast.

The toughest problem centers about coordination of the output of oil refineries with the conflicting demands of oil-engine producers. Each time the quality of a fuel is improved, oil engine makers try to improve their own products. The result is an increased demand for high-grade fuel oil, placing a burden upon oil refiners who have in the past concentrated on producing low-cost fuels for power plants.

Furthermore, the Diesel industry, in attempting to meet its growing consumer demand, is also producing engines to meet specific operating conditions. Thus each manufacturer settles upon various fixed engine designs, and calls for a particular grade of oil for each type of engine. This means that the oil refiner must supply a multiplicity of high-grade fuel oil specifications.

Though low-grade fuel oil can be used satisfactorily, and is today still widely employed in heavy-duty work, most engine companies now prefer a better oil, even though it reduces fuel economy. Since behavior of a fuel oil cannot be ascertained simply by knowledge of its known characteristics, actual test performances are the only means of finding suitability. Most engine companies have decided from these tests that high-grade fuel is the best.

If the gasoline engine is nearing its peak of efficiency, and there are a few who think it already has, the possibilities of expansion for the Diesel industry on the highway are limitless. Public interest in Diesel engines is great; the number of engineers attending every Diesel conference is large. It is possible today that the prediction made by Dr. Rudolph Diesel before the American Society of Mechanical Engineers in 1912 are at last coming true:

The Diesel engine has doubled the resources of mankind as regards power production, and has made new and hitherto unutilized products of nature available for motor power. . . . I must call to your mind the fact that nowhere in the world are the possibilities for this prime mover as great as in this country.





## Good Business BETWEEN Good Neighbours



**T**HE warm friendship that good neighbours entertain for one another becomes still more firmly cemented through the carrying on of business of mutual benefit and profit.

Canada is a country of many-sided commercial development, and is steadily increasing its volume of trade with the United States in the products of forests, agriculture, mines and other resources. The United States dollars that are used in buying Canadian products are promptly returned to pay for Canadian purchases of materials and equipment from the United States.

To afford all possible assistance toward the building up of Canadian-American trade, the Department of Trade and Commerce is represented in the United States by three Trade Commissioners.

These Trade Commissioners are well equipped to furnish United States businessmen with the information concerning Canada and Canadian products.

★ ★ ★

### CANADIAN TRADE COMMISSIONERS IN THE UNITED STATES:

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New York City, N.Y.

M. B. PALMER,  
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# DEPARTMENT OF TRADE AND COMMERCE

HON. JAMES A. MACKINNON, M.P.  
*Minister*

**OTTAWA, CANADA**

L. D. WILGESS  
*Deputy Minister*



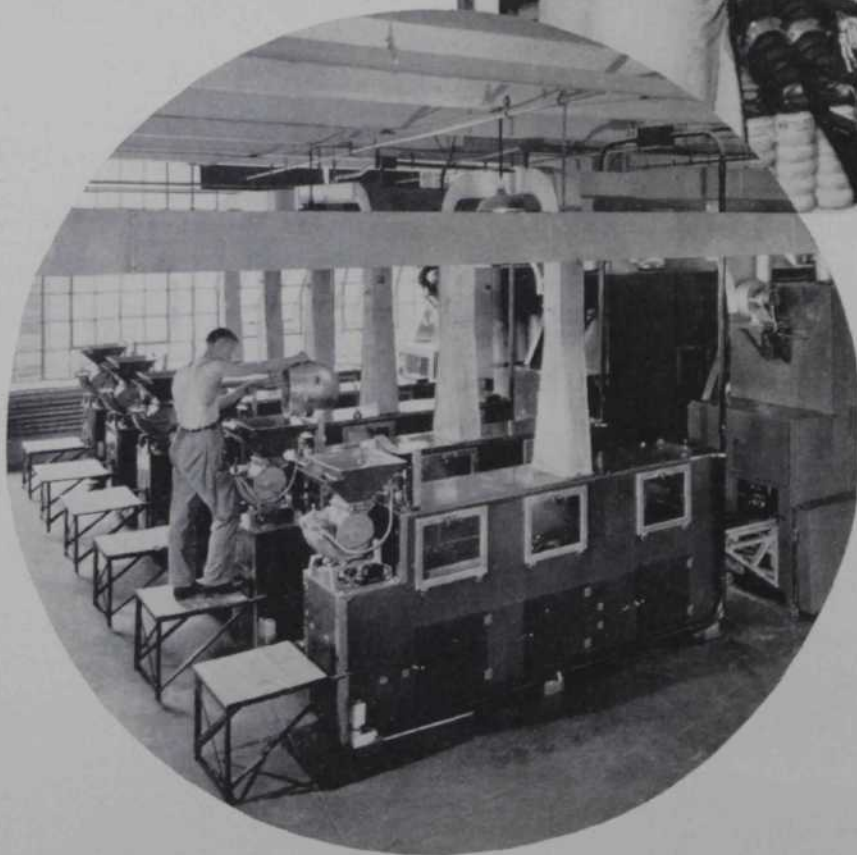
# Dollars from Doughnuts

By PAUL D. PADDOCK

Doughnut machines turn out prepared "dunklets" at 1,400 dozen an hour



Plain and sugar-coated doughnuts still outsell the more fancy ones



**T**HE DOUGHNUT dates back to antiquity but the doughnut industry is only 21 years old.

It comes of age this summer.

Doughnut sales now ring the nation's cash registers to the tune of nearly \$80,000,000 a year. Approximately \$10,000,000 have been invested in "exclusively doughnut" making and handling equipment.

More than a dozen concerns are manufacturing doughnut equipment and some 200 companies are now making and selling doughnut mixes.

More than any other one man, Adolph Levitt is considered the founder of the modern doughnut industry. He took the doughnut and surrounded it with modern showmanship, merchandising and some of the most effi-

cient machines Yankee ingenuity has yet devised.

He put doughnut factories in show windows and they now rival steam shovels in sidewalk audience appeal.

Doughnut shops are dotting the nation. Two are in Times Square. When the first one was opened there at an annual rental of \$60,000, the late O. O. McIntyre was not the only person who poked fun at the idea of the old-fashioned doughnut "trying to be sophisticated." The shop paid a profit the very first year and has continued to do so since.

The first World War, the Salvation Army, the Automats and complaints from a motion picture audience are among the apparently incongruous factors mixed up in the beginnings of the doughnut industry. The story begins in 1920 in one of Mr. Levitt's bakeries where a man is making doughnuts in the old-fashioned way—dropping plump rings of dough into a big black kettle of fat, turning them over and then fishing them out with a long fork.

The doughnuts sold briskly at 50





*Today—discover*

## **THE 1941 BOTTLING OF FOUR ROSES**

TODAY, THERE AWAITS you a whiskey so magnificent that we had to give it a special designation: *The 1941 Bottling of Four Roses*.

From the time the whiskeys that go into this Four Roses were laid down, five years ago and longer, we've been pretty certain they would be exceptionally fine. For into their making had gone extraordinary care... and to their aging we applied added knowledge, added skill.

But when we finally opened the barrels, even we were astonished at the surpassing excellence of these whiskeys.

Right then and there, we knew we had achieved a Four Roses more glorious, more satin-smooth, more flavorful, than any whiskey we had ever made or known, in all our 76 years' experience.

So, no matter when you last tasted Four Roses, there is a new and thrilling experience in store for you when you taste the 1941 Bottling. Won't you try it—*today*?

*Four Roses is a blend of straight whiskies—90 proof. The straight whiskies in this product are 5 years or more old. Frankfort Distilleries, Inc., Louisville & Baltimore.*

**EVERY DROP IS 5 YEARS OR MORE OLD**



Shock-resistant workmen's helmets are formed from fabric sheets impregnated with BAKELITE Laminating Varnishes



High-speed grinding wheels are bonded with tenacious BAKELITE Resinoids



Colorful hulls for model boat kits are molded in one piece from sturdy BAKELITE Phenolic Plastics



Hardware and other metal products are protected with coatings of BAKELITE Heat-Hardenable Lacquers



## They are all BAKELITE Plastics—but all are Different

BAKELITE Plastics take many forms...each type produced for a different purpose...to meet the varied manufacturing and service requirements of a diversity of industrial and consumer products.

The forms available vary from *moldable* plastics to *synthetic resins* for modern surface coatings, from gem-like *cast resinoid* sheets, rods, and tubes to *bonding materials* for grinding wheels and plywoods, from *laminating varnishes* to *cements* and *adhesives*.

The ever-broadening diversification of materials offered by BAKELITE Corporation is now supplemented by the "Vinylite" plastics developed and produced by Carbide and Carbon Chemicals Corporation. They form an entirely new and useful group of materials for modern living. Both of these companies are Units of Union Carbide and Carbon Corporation.

Certain types are water-, acid-, and alkali-resistant. Others possess toughness to withstand high impact. One group has high dielectric strength, while another is outstanding because of dimensional stability.

To assist manufacturers in learning more about the properties of BAKELITE Plastics and their correct application, we offer the services of our Engineering Advisory Staff. As an introduction to these versatile materials, write for a copy of illustrated booklet 25P, "New Paths to Profits,"

written in terse, time-saving style for the business executive.

BAKELITE CORPORATION  
Unit of Union Carbide and Carbon Corporation



30 EAST 42ND STREET, NEW YORK

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PLASTICS HEADQUARTERS



cents a dozen. People liked to see them made. They liked to eat them. A kettle was installed in another Levitt bakery and before long all his stores were featuring old-fashioned doughnuts. Then trouble began.

### It was a hot, smelly job

THE time-honored method of making doughnuts was interesting to spectators but it was also hot, smelly and slow. The fumes became so objectionable in one bakery that they had to be drawn off in an air duct. It happened that this duct served a motion picture theater next door. Unfortunately, it leaked. Soon, patrons were complaining loudly at having doughnut odors mixed with their drama.

Mr. Levitt was tempted to give up doughnut-making but, after witnessing the acceptability of his product, he believed that he had only scratched the surface of the potential doughnut market.

One night on a train trip to Philadelphia, he hinted at his problem while talking to a fellow passenger. "I think I can help you," the man volunteered. "My company makes machinery for the Automats. I believe we can make a machine that will manufacture doughnuts. It will take care of the fumes and everything. Do you want us to try?"

Joyfully Mr. Levitt gave the order to go ahead.

After 11 failures a twelfth machine was set up for duty. Pleased with the success of the machine and more confident than ever that the doughnut has a great future, Mr. Levitt sold his bakery chain and devoted all his energies to the making of machines for other bakers. But further perplexing problems arose.

The machine efficiently standardized the method of making the doughnut but, up to that time, nothing had been done to standardize the mix that went into the hoppers. The necessity for such a mix was soon apparent. The machines clogged on some of the mixtures poured into them. Worse still, not all mixes were good to begin with. Another important step-development, distribution and acceptance of a standard mix that would work equally well in all the machines and that would produce better doughnuts must be taken if the doughnut industry was to proceed satisfactorily.

He bought a flour mill at Ellicott City, Md., on a site where the first flour mill was built in this country. He scoured the land for wheat, milk and eggs that would suit his purpose and, after repeated trials and failures, developed a mix that would meet his requirements. All the baker had to do was to add water, stir and then pour the dough into the hopper of the machine.

The corporation now has nearly 2,000 on its staff. It makes machines, mixes

and doughnuts. It sponsors more than 14 retail display and sales outlets in co-operation with other food dispensers. At these places, the show window doughnut factories are seen at their best. It is here also that the fancy doughnut appears in all its glory although the plain, sugared and chocolate-covered kinds are still the biggest sellers.

Recently doughnut mixes with vitamins added have been introduced to keep pace with the general vitamin "movement" throughout the country and to make the doughnut still more important as a food. Elaborate tests have been conducted to demonstrate the nutritious qualities of the doughnut and further proofs of its digestibility have been offered to medical and other agencies seeking such information.

In the corporation's larger producing centers, doughnuts are made at the rate of 1,400 dozen an hour and more. The dough is squeezed by air pressure through nozzles that cut it into rings. The circlets swim along a bath of vegetable fat electrically heated to exactly the right temperature. Then they are flipped over to fry on the other side. Evenly "done" and glowing with a color rivalling sun tan, they march out upon a conveyor which sends them to the cooling cabinets.

It's less than an hour from the mix to the finished doughnut, neatly packed and ready for the dealers' counters.



Doughnut displays in grocery stores and other outlets where they were never sold before help swell the annual sales totals to an estimated minimum sum of \$80,000,000



# "What's all this—a music box?"

—says the Little-Man-Who-Wants-to-Know

- "Not at all! . . . The purpose of this marvelous mechanism is *protection*—"
- "This is a NATIONAL Window-Posting Machine, generally used by stores for keeping time-payment accounts. The only one made that prints a ledger card, receipt book, posting voucher and journal all at once—computes new balance, accumulates the amount, counts and classifies the transaction—"
- "My word! Can it talk?"
- "No, not quite, but it *can* make friends—because it gives fast service and accurate statements to customers. And protects the management and the cashiers by accumulating *locked-in* totals of all transactions—"



©NCR



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- "NATIONAL makes other machines, too, a complete line for all businesses from banks to stores to schools. Machines designed to save time, avoid error, cut costs, increase net profits—"
- "Machines for listing, posting, proving, analyzing, book-keeping, check writing, remittance control and more—"
- "CONTROL! That sells ME! . . . I'll tell all my friends."
- "And remember—these machines *pay for themselves* many times over! They are made by the makers of NATIONAL Cash Registers—sold and serviced by *specialists*. Whatever your problem, see NATIONAL first!". . . Call the local office TODAY.

INVESTIGATE

## National ACCOUNTING MACHINES!

THE NATIONAL CASH REGISTER COMPANY • DAYTON, OHIO  
Cash Registers • Posting Machines • Check-Writing and Signing Machines  
Bank-Bookkeeping Machines • Typewriting-Bookkeeping Machines • Analysis Machines

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## "... And in Reply Would State . . ."

SOME competent statistics hound should discover and publish how many millions of tons of dead words that never were alive are at any given moment taking up valuable storage space in our cities. The most costly acreage in the world is largely occupied by carbon copies of meaningless words, stored in expensive steel cases or in pasteboard transfer files, or just piled up in space that is needed for customers.

### Filling up filing space

"YOURS of the sixteenth at hand, and in reply would state . . ." probably takes up more space in the business district of your town than do the sewer system and hospitals combined.

"Please be advised" undoubtedly takes up as much room in the average law or realty office as do all the relatives of the Big Boss in vacation time.

As for "Dear Mr. Thingenbob" and "My dear Mrs. Bingytibing," they, together with "Yours truly" and "Very sincerely yours," sometimes compel the boss to rent more space, and thus force the landlord, against his better judgment, to build another office building where a rose garden should be.

I know several portly men with gray hair and golf club memberships around New York who have spent their entire adult lives dictating to Miss Godfrey and Miss Brawdfod letters like this:

1416 Broadway,  
New York, N. Y.  
September 20

Dear Mr. Jonekins: Your query of the fourteenth at hand and contents noted. Please be advised that we cannot continue your credit beyond this date, and future shipments will be sent parcel post, C.O.D., if you desire to continue the service.

With very best personal regards, and best wishes for the approaching Thanksgiving season, we beg to remain,

Very sincerely yours,

THE BUNKUM COMPANY, INC.  
George Farnum Faroff, Pres.

At least one carbon copy of this bit of English literature is enshrined, under rules of the office manager, in a fireproof filing cabinet in an air-conditioned vault. If Mr. Faroff is a really important head of a stupendously important company, it's not improbable that three carbons are kept in three separate offices of associates who spend most of their days reading and digesting thousands of similar letters. That's called "keeping in touch with the business."

Chief benefit to the diligent reader of this set of carbons is the inevitable promotion that is bound to occur if he persistently quotes the Old Man's correspondence before the Old Man at the pep luncheons and at the annual office picnic.

Unbelievable as it may sound to the average letter writer, hundreds of important executives in big city head-



quarters never write a letter that isn't gone over, changed, edited, and dumbed up by members of the board of directors, staff experts, engineers and lawyers.

You think the poor man is a stuffed shirt because he writes you such a pompous letter about your little lapse of memory in regard to the monthly rental. Please remember the Board of Directors.

The correspondence problems of Mr. G. F. Faroff, whether in regard to a line of credit or an overdue rent check, might be solved as simply as this.

In the first case Mr. Faroff could have permitted Miss Godfrey to sleep an extra hour while he answered the mail. A two-for-a-nickel pencil would do. To conserve our national resources, Mr. Faroff could have taken the elaborate sheet of correspondence paper on which was written the letter to which he was replying, and, at the bottom he could have written: "No soap. Pay up, or C.O.D."

He could have signed his name or initials with the pencil. A fountain pen and specially colored ink add not one cubit to the stature of Mr. Faroff, despite his illusions.

Miss Brawdford would have been shocked that afternoon if her boss had told her, "Sorry, old girl. You really should marry the nice chap that's been coming around here of late to take you to lunch and keeping you out an extra half hour. I've found that I don't need so much help about the letter-writing."

### Simplified correspondence

WHEN I was editor of a newspaper syndicate, I discovered that routine correspondence was taking most of my time. I had other ideas about the use of time. So I sneaked a few non-carbon jobs over on the Office System.

Editor John Murray Inx wrote in from Indesota on heavy stationery with two-color letterhead. He said that Mrs. Rose Heel's writings were not worth what he was paying for them, and what did we propose to do about it?

I had a trick mechanical pencil, and liked to use it. So I wrote at the bottom of his letter:

*Dear Jack:* You're nuts. It's worth twice the money. Keep still, please, or the Boss will raise your rate.

I signed my initials.

I liked that way of handling the mail so well that I tried it out extensively. I was free at 11 o'clock to do some important writing, in case I should know how to do it. The secretary was happy, because she merely had to put the stuff into envelopes.

Inside of a year we were moving to smaller quarters. We didn't need all those filing rooms. And the customers appreciated the personal attention indicated by the pencilled notes.

When my daily column began bringing in a heavy fan mail, I remembered that personal touch item.

Instead of having form letters run off by a multigraph or form notes written by a secretary and signed with a forged signature, I began answering all the mail myself, by hand. It turned out to be the easiest and most effective way of doing the job. At present, my letters

Sounds like a  
whale of a lot  
of drinks for  
so little!

That's not all! It  
costs even less  
with larger  
Frigidaire coolers!

## 250 Cool Drinks for less than 1<sup>\*</sup>cent!

### New Frigidaire Water Coolers give you amazing economy of famous Meter-Miser!

• The new Frigidaire Water Coolers are equipped with the famous Meter-Miser, the same type mechanism proven dependable in over 2½ million Frigidaire refrigerators and water coolers. This Meter-Miser uses a rotary principle that eliminates pistons, connecting rods, many other parts that cause friction and wear. And it's protected for 5 years against service expense! In addition, you get:

**Handsome Appearance, Compact Size.** 5 models only 14¾" square. Stainless steel top.

**Effortless Drinking**—"Magic Action" bubbler on pressure coolers requires only a touch of finger. Foot pedal optional at slight extra cost.

**Finger-Tip Temperature Control**—Select the water temperature you prefer.

**Model for Every Need**—A complete line of bottle, pressure and tank-type models.

**Surprisingly low-cost**—can be purchased and operated for only a few cents a day.

*Don't wait! Call in nearest dealer or send for complete Frigidaire Water Cooler Catalog today.*

**CAUTION!** It isn't a genuine Frigidaire unless it bears the "Frigidaire" nameplate. Frigidaire products include: Water Coolers—Air Conditioners—Beverage Coolers—Refrigeration Equipment.

\* Costs less than 1c to cool 250 4 oz. drinks from 80° to 50° in 80° room, using bottle type cooler and 3c KWH rate. Larger Frigidaire coolers cost even less.



Call in the Expert

# Call in Frigidaire



Send  
for  
this Catalog!

(N.D.-5)  
Frigidaire Commercial Division,  
General Motors Sales Corp., Dayton, Ohio  
Please send me free Frigidaire Water Cooler Catalog.

Name and Company.....

Street Address.....

City and State.....





# "TRUCK-TRAILERS KEEP OUR HAULAGE COSTS in the Black!"

EDGAR B. FLINT, Vice-President  
HOWARD FLINT INK COMPANY



## An Example of Why it Pays to Challenge Haulage Expense!

• YOUR OWN hauling requirements may not be as unusual as are those of the Howard Flint Ink Company, but this firm's experience—in switching from trucks to Truck-Trailers—will be helpful.

A 50% increase in load . . . 1500 gallons of newspaper printing ink, compared with 1000 gallons previously carried . . . and at a lower cost per mile!

That's why Fruehauf Trailers are now used at the Flint Ink Company's main plant and seven branch plants, serving newspapers in nearly every section of the country.

### BIGGER LOAD—SMALLER TRUCK

How are such big savings possible? Because it's a fundamental truth that a truck, like a horse, can pull far more than it can carry. This manufacturer now pulls six tons of ink in a Fruehauf Trailer with a smaller truck than was formerly needed to carry four tons.

And here are a few of the many other reasons why the Flint Ink Company prefers delivery-by-Fruehauf . . . typical of what has been experienced, in one way or another, by companies in over 100 different industries: A Tank-Trailer of ink is emptied in 20 minutes; the old way in drums took as long as two days. There is no waste . . . the customer pays

for what he receives; in the old way, from 1 to 5% was wasted. Ink in the Tank-Trailers is kept warm and free-flowing in coldest weather by exhaust coils . . . a Fruehauf-engineered detail.

Whether your loads are bulky or heavy or liquid . . . if you now use trucks, there is every chance that a Fruehauf will save you money. Possibly you, like many users, could profit by the "shuttle system." Instead, say, of using 3 load-carrying trucks, you use 1 truck and 3 Trailers. You leave only the Trailers to be loaded or unloaded and keep the truck busy constantly, pulling first one and then another of the Trailers ready to be moved.

Why not call in a Fruehauf man . . . today . . . to find out how these savings can be applied to your business, too?

World's Largest Builders of Truck-Trailers  
**FRUEHAUF TRAILER COMPANY • DETROIT**

Sales and Service in Principal Cities

Factories: Detroit, Kansas City, Los Angeles, Toronto

Drivers of motor trucks and truck-trailers have the responsibility of the entire freight service for 48,000 communities in the United States, with a total population of nearly 8,000,000. These communities have no railroad service whatsoever.



# FRUEHAUF TRAILERS

"Engineered Transportation"

REG. U.S. PAT. OFF.

from readers fall a little short of 10,000 a year. Except for a comparatively few letters, mostly seeking certain standard information, all of these are answered in my own handwriting, and signed by myself with name or initials.

Certain readers write in for a copy of a column that was treasured but lost. We very soon learn what columns are thus treasured, and have copies run off by offset process. These are inserted into stamped envelopes that are sent in by the fans. This automatic system may take care of 3,000 customers a year.

There remain the other 7,000, more or less.

Some communications have to be answered by dictated letters. These include all letters involving any possible promises, business or professional commitments, blackmail or friendly argument. Not more than a thousand letters a year are handled thus, by dictation to a secretary who has much more important things on her mind than taking routine dictation.

That leaves about 6,000 to be answered by muscle-power.

Divide the year into 300 working days, and you have the not insoluble problem of answering 20 letters a day.

## Individualized correspondence

I HAVE postcards printed for my special use. Not regular government cards, but cards of much better quality, always a pearl-gray heavy stock, with lettering and lines in scarlet ink.

In other words, appearance of the card is distinctive, and the friend who has taken the trouble to write in and say that he does or does not like the column is pleased to know that the recipient of his letter sends back his message in a special way.

Strangely enough, I feel a real debt to the people who have taken the pains to write me their thoughts and ideas about this and that. If it were not for them, I would feel isolated behind a wall of ink and paper. I try to express this appreciation in my brief notes.

The secretary opens the mail, addresses a card to each writer, and clips the card to the letter.

Reading the mail isn't work. It's a real pleasure, a stimulant for the day's work. People are surprisingly nice in their letters to a columnist.

Having read the letter, the temptation is to write 1,000 words of appreciation in reply. But there's that card, very small for one who writes a big hand with a big pen. I write:

Thanks. That's a fine dog story. Good health!

I sign my name, unless I recognize the correspondent as one of the regulars. Initials in that case.

In no case is there any dear-siring, dear-madaming, dating or yours-truly-ing. The address is on the other side of the card, and the date is kindly affixed by the post office.

The answer I've quoted is fairly typical, though some are longer, and many shorter. All are answered. Each reader knows that the writer has read his letter and taken the trouble to answer it personally. From the letters I know that





**A**MERICA has a new "lifeline to the Indies"—if the supply of natural rubber should be shut off, you'll ride on tires made from oil.

For more than a year, Shell's research laboratories have been supplying rubber manufacturers with *butadiene*—several tons a week—and *butadiene*, made from petroleum gases, is a long-sought key to synthetic rubber.

Shell is already embarking on large-scale production of *butadiene*. With this and glycerine, TNT, chemical fertilizers—all derived from oil—Shell scientists have helped take America a long way toward economic and defensive independence.

These incidental accomplishments emphasize the skill which Shell scientists apply to their main assignment: *Constant improvement of Shell fuels and lubricants.*

**Today's Increasing Tempo** of production calls for better industrial lubricants. Lubrication efficiency is a measure of plant output.

Shell's \$3,500,000 research facilities, manned by 821 scientists and assistants, are making important contributions. For example, in literally hundreds of instances, Shell lubrication engineers have opened the way to increased production and lower operating costs, by the improvement of lubrication methods.

Before Shell industrial lubricants are offered to you, they are plant-tested under all kinds of actual operating conditions.

With the use of Shell lubricants, you are assured the continued watchfulness of Shell men—a service which needs no prompting.

Are you quite sure that your plant has the benefit of all that is new in lubrication, as it develops? You will find a Shell man's recommendations entirely practical—and made without obligation.



# SHELL INDUSTRIAL LUBRICATION





## How Open Account Financing solved the problem for Mr. X\*

ABOUT January 1st, 1938, Mr. X started in business, investing \$20,000 and secured a small line of bank credit.

At year's end his statement showed:

GROSS SALES	\$185,031
MR. X'S SALARY	4,800
NET LOSS	3,010

However, by this time, sales were mounting rapidly, and the outlook was excellent, though it was going to require more capital. So he took in Mr. Y as an equal partner. Mr. Y. put \$20,000 into the business.

The partnership was not happy. The partners couldn't agree on management. Mr. Y wanted to get out. Mr. X wanted to buy him out. The problem was to find the money without bleeding the business of its capital. The solution was, COMMERCIAL CREDIT OPEN ACCOUNT FINANCING.

In September, 1939, Mr. X, after consultation with a Commercial Credit Corporation officer, worked out a plan of action. He took an advance on the company's receivables, paid off his partner, and was again the sole

owner. The statement at the end of 1939 showed:

GROSS SALES	\$474,000
MESSRS. X & Y'S SALARIES	14,800
NET PROFIT	3,611

Still financing through his accounts receivable and inventory loans, Mr. X increased his business in 1940. And on December 31st, he looked with satisfaction at a statement that showed:

GROSS SALES	\$750,400
MR. X'S SALARY	25,000
NET PROFIT	2,962

OPEN ACCOUNT FINANCING is doing a fine job for Mr. X.

\* \* \* \* \*

If you have any problems in connection with your financing—uncertainty as to future rates—uncomfortably close credit limits—expensive delay in arranging loans—let us show you how OPEN ACCOUNT financing can be utilized to substantial advantage. No obligation—just write for free booklet, or ask a representative to call. Address Dept. NB.

\*A factual case from our records. The figures can be certified.

## COMMERCIAL CREDIT COMPANY

"Non-Notification" Open Account Financing

BALTIMORE

BOSTON NEW YORK CHICAGO SAN FRANCISCO LOS ANGELES PORTLAND, ORE.

CAPITAL AND SURPLUS MORE THAN \$60,000,000

practically all readers realize that correspondence is heavy, and that not too much time can be given to any one correspondent.

Perhaps that method of correspondence wouldn't do for really important folk. Still, I wonder.

We'll suppose the Tiffenese Ambassador has sent a diplomatic note to our President, expressing, in wasteful diplomatic verbiage, a protest against American warships having gone through the Straits of Hoitsy and the Sea of Toitsy.

What reply, composed by a diplomatic corps and imprinted upon vellum, could be more effective than this, pencilled at the bottom of the Tiffenese note in the President's own hand:

Nuts to you. Who owns this earth, anyway?

—CHARLES B. DRISCOLL

## Lawmakers Eye Bill Calendars

LAWMAKERS of the 43 state legislatures convening in January were confronted with proposals related to national defense, welfare, labor, taxation, civil service, education and administration. Special attention was generally in view for four model bills covering sabotage, explosives control, protection of property and state home guards.

Here is a suggestive list of measures due for consideration:

**Administration:** Efforts to reorganize the state government of Texas and the state financial administration of Kansas are predicted. New Jersey may revise its fiscal operations and amend the constitution to strengthen executive control of state departments.

**Welfare:** Proposals to increase old age assistance payments are likely in Kansas and Massachusetts; reduction of age limits for old age benefits, establishment of a state lottery to provide relief funds, and juvenile court measures may also come up in Massachusetts. A complete relief program is expected in New Jersey, and new relief measures in Pennsylvania and Minnesota. A housing program for slum clearance will be proposed in Minnesota.

**Finance:** Minnesota will consider a sales tax in lieu of property tax levy; Ohio, abolition of earmarkings of special revenues to give local officials wider latitude in handling tax money raised for operating expenses; Massachusetts, classification and taxation of forest lands; New York, appropriations placing state in line with national defense program; Texas, a procedure for collecting delinquent state taxes.

Bills to improve tax assessment are expected in Connecticut, New Jersey, Kansas, Colorado and New York. In Colorado and Kansas, drastic revision of state tax laws may be proposed. Measures may be introduced to improve collection of real property taxes and special assessments by giving tax buyers a merchantable title in Illinois, to revise the procedure concerning state grants to



municipalities in lieu of taxes on state-owned property in Connecticut, and to modify the mortgage moratorium in New York.

**Labor:** Changes in workmen's compensation law will come up in Massachusetts, Tennessee and Connecticut; unemployment compensation legislation in Ohio and Pennsylvania, and an industrial compensation measure in Ohio. Wage and hour proposals may be made in New Jersey and Massachusetts, and proposals to alter the labor relations act in Minnesota.

**Agricultural and Conservation:** Proposals are scheduled in Massachusetts for the protection and development of forest lands, flood protection on rivers and streams, state acquisition of specified ocean beaches, revision of conservation, and ratification of the interstate marine fisheries compact. In Texas, a conservation commission to supervise oil and gas production is under consideration.

**General:** Regulation of fireworks will be sought in Massachusetts and Maryland. In Texas, attempts may be made to increase legal truck load limit, to authorize sale of liquor by the drink, to establish a utility commission; in Massachusetts, to recodify insurance laws, to require licenses for pasteurization of milk, to require annual registration of physicians, to regulate the sale of bedding and upholstered furniture; and in Kansas, to regulate aeronautics, and weights and measures.

## "Fair Trade" Meets Opposition

"Farewell to fair trade," says Denton Sleeping Garment Mills of Centreville, Mich., in an announcement that its resale price maintenance contracts in 44 states are all being cancelled. It didn't work, says the president of Denton Mills. Dealers concentrated their local advertising on competing, non-price-fixed brands which could be offered at special prices. Sales in all sections fell off in 1940. This repeats certain experiences in the food field. Although the demand for "fair trade" regulation stems largely from some of the retail trades, retailers themselves are often the means of defeating it.

In a memorandum to the T.N.E.C., Corwin Edwards, assistant to chief trustbuster, Thurman Arnold of the Department of Justice, takes a swat at "fair trade." Resale price legislation is "a classic example of the use of misrepresentation by a pressure group," said Edwards. He recommended repeal of the Miller-Tydings enabling act. Instead of price maintenance laws being an aid to the independent retailer against the chains, they are a handicap, he maintained.

In the drug field specifically, he said this new control serves to relieve the chains from the free competition of independent channels through which "fast-moving packaged drugs can reach the consumer at low prices."

One woman  
tells another...

AND UP GO  
YOUR SALES!

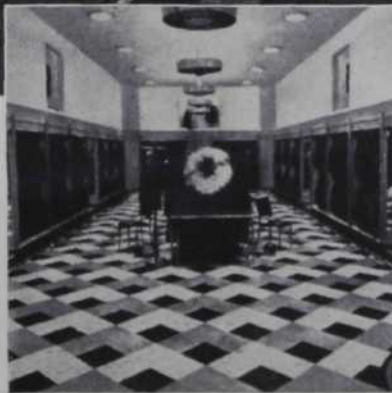


CALL IT GOSSIP, call it small talk—it's good for business. Once shoppers start talking about *your* place of business, you can look for an upturn in sales.

So start them talking—start them buying—by dressing up your shop, store, or showroom with a stylish, colorful floor of Armstrong's Linoleum.

Business leaders everywhere are boosting sales this way. Ask your local linoleum

merchant to show you the gay, sales-attracting patterns in Armstrong floors. Ask him how easy these floors are to clean—how well they stand up. Then ask him the price and you'll be pleasantly surprised. And write today for our new color-illustrated book. Sent free (40¢ outside U.S.A.). Armstrong Cork Company, Floor Division, 4105 Coral Street, Lancaster, Pa. (Makers of cork products since 1860)



**THEY SAY NICE THINGS** about Ivey's Department Store of Charlotte, N. C. It's smart and modern, neat and clean. And the floor of Armstrong's Linoleum adds to the eye-appeal. Interior and floor designed by E. Paul Behles Associates, New York.

**MEN TALK, TOO!** They tell their friends about stores that are well groomed like their clientele. Note what a smart touch Armstrong's Linoleum adds to the Stein Clothing Store of San Diego, California, shown here. Besides adding sales appeal, it cushions the footsteps of customers and clerks, and saves cleaning time and expense.

## ARMSTRONG'S LINOLEUM FLOORS

Custom-Laid or  Standard Designs

PLAIN • INLAID • EMBOSSED • JASPE • CORK TILE • ASPHALT TILE  
RUBBER TILE • ARMSTRONG'S LINOWALL and ARMSTRONG'S QUAKER RUGS



# *An Open Letter to GENERAL MOTORS DEALERS*

**T**HROUGH all the years that General Motors has been in business, you and we have worked together.

They have been great years, despite their headaches from time to time.

We were building a business together—a new business based upon a new product, destined to revolutionize the living and broaden the horizons of millions.

Our job has been to build that product better and better—to deliver the finest automobile values that General Motors research and manufacturing resources can provide.

Your job has been to distribute that product and maintain it in service—a pioneering job, in which there still is and always will be much to be done.

As a group you have done that job so well that steadily increasing numbers of people in America have come to own and enjoy and benefit from the cars you sell.

Here is a story few people know—few, even of those who benefit most.

It is a story of how 18,000 local businessmen have stepped up to a difficult job.

It is a story of hard-won progress—of challenges met in management—of steadily advancing standards in selling and servicing—of learning to know what your local customers want and when they will want to buy.

Few other groups of merchants in America have made a record finer than yours.

We believe the people in America—the people of your home town—need to know that story.

That is why we tell it here, why we plan to retell it in these pages in the months to come.

*Alfred P. Sloan*  
Chairman  
GENERAL MOTORS  
CORPORATION



GENERAL MOTORS

GENERAL MOTORS DEALERS

Partners  
in  
PROGRESS  
through  
SERVICE

GENERAL MOTORS

Home Address, Main Street, U.S.A.

CHEVROLET • PONTIAC • OLDSMOBILE • BUICK • CADILLAC



### Traffic Delays Cost Millions

**ECONOMIC LOSS** from traffic congestion in Detroit is running up an annual total of \$18,000,000. Figure represents increase of 75 per cent in yearly economic losses since 1936 despite \$30,000,000 expenditure for street widening and other projects completed by the city, the Wayne county road commission and the state highway department, reports the American Public Works Association. Although these projects kept congestion from rising more than 14 per cent in four years, they could not cope with the 35 per cent increase in total traffic since 1936.

Cost of congestion was based on gasoline wastage, estimated to be about a third, extra wear on brakes and motor parts, and time lost by drivers of commercial and passenger vehicles. A value of three-fourths of a cent was put on every minute lost by passenger cars, 1.47 cents for buses and commercial cars, and 1.38 cents for taxis.

Detroit streets carried in 1940 a daily average of 10,590,000 vehicle miles of traffic. About 64 per cent of this daily mileage the state highway department said was definitely hampered by congestion.

### Yeast Culture Now Insured

**SELECT GROUP** of million-dollar insurance policies now includes a yeast culture for brewers' use. Policy holder is Falstaff Brewing Corporation, St. Louis; underwriter is Lloyds of London. Coverage

## MEMO

## for Busy Readers

1. Congestion proves expensive
2. Bacteria prove insurable
3. Few of us make wills

specifies fire, theft or accident, and similar contingencies.

Culture has been in process of development for 50 years. Brewers' yeast is a highly sensitive, living organism unlike ordinary yeast. It is the most important single factor in brewing, puts other ingredients to work, is chief determinant of product's flavor and character. Yeast is filtered out after brew reaches a pre-determined stage, is used over and over again.

No two yeast cultures are alike. Once lost it is impossible to duplicate original and attain same flavor effect. Because they are alive, yeast cultures vary in

characteristics as much as other forms of life. Loss of yeast strain would require starting business all over again.

### Will-Making a Deferred Job

**ONE OUT** of three middle-class Americans knows that he needs to make a will, but can't get around to doing it; one out of five actually has made a will, and one out of six feels his estate doesn't amount to enough to warrant making a will.

An inquiry to 25,000 of its ordinary policyholders made by Northwestern National Life Insurance Company also revealed that a vacation or other trip causes more people to make wills than any other outside influence, with advice of business associates second in causal importance. Change in family relationships is another major cause of will-making.

Unexpected death of some relative or acquaintance is the prime stimulus for making ten per cent of the wills reported. A change in physical health was found to be one of the minor influences, accounting for less than three per cent of wills.

Only 16 per cent of the policyholders reporting felt they did not have an estate aside from life insurance big enough to justify a will, but holdings of those without wills averaged \$6,870 in life insurance and \$5,741 in other property. Ten per cent of the persons without wills reported more than \$10,000 each in property other than life insurance. More than half of them knew they needed to make wills but were still procrastinating. Average estate of those who had made wills amounted to \$16,633 in life insurance and \$19,476 in other property.

"Home made" wills are a fertile source of trouble and unhappiness; owners of estates of between \$3,000 and \$10,000 in value are the worst offenders in this respect. Reasons given for neglect of will making included these explanations: "Want to make all trouble possible for wife"; "Waiting for children to develop business ability"; "Family lost all in the Austrian anschluss"; "Just plain shiftless" (this "shiftless" client had \$13,000 of insurance and \$40,000 worth of other property); "I intend to let them fight over my things."

## 10-DAY FREE-TRIAL COUPON!

Fill it once... Write for months!

**Esterbrook  
DIP-LESS**

### WRITING SET!

**Writes A Full Page Without Dipping!**

New. Convenient. As substantial as it is good looking! Holds an average half-year's ink-supply. *Can't overflow. Can't leak.* Gives you famous Esterbrook pen points. Always ready to write! Try a Single or Double Set this easy way. Mark and mail this coupon now. No obligation. The Esterbrook Pen Company, Camden, N. J.



- |                                       |                          |
|---------------------------------------|--------------------------|
| SINGLE SET . . . (\$2 <sup>50</sup> ) | <input type="checkbox"/> |
| DOUBLE SET . . (\$5 <sup>00</sup> )   | <input type="checkbox"/> |
| BLACK . . . . .                       | <input type="checkbox"/> |
| GRAY . . . . .                        | <input type="checkbox"/> |
| WALNUT . . . . .                      | <input type="checkbox"/> |
| MAROON . . . . .                      | <input type="checkbox"/> |
| GREEN . . . . .                       | <input type="checkbox"/> |

Your Stationer's Name .....

**ATTACH THIS COUPON TO YOUR LETTERHEAD...AND MAIL NOW!**





## For each purpose - ONLY ONE SERVES BEST

The trotter does not pull the heavy load—nor does the draft horse run the trotter's race. Each has his purpose...each is bred and trained for his own specialized work.

Since 1885, Arabol has pioneered in adhesives—working always to supply the one adhesive best suited to each and every job. Thus today, there are 8,500 adhesives formulae on file in Arabol laboratories; 900 different formulae are in active demand. New problems are constantly undergoing research.

The Arabol Representative who calls on you is technically trained—well qualified to help you find the one best answer to each of your adhesives require-

ments. Many problems can be whipped right in your factory, in one day. At all times, he can call upon any of three laboratories for quick action on new or special needs. See the Arabol Representative when he calls.

**WRITE** us for Bulletin No. 30. Let us tell you of current developments in gums, glues and pastes for your particular line of business.

### THE ARABOL MFG. CO.

PIONEERING SINCE 1885

Executive Offices: 110 East 42nd St., New York, N. Y.

Offices and Factories:

BROOKLYN · CHICAGO · SAN FRANCISCO

Branches & Warehouses in Principal Cities



### And—for Your Offices—



You'll find sound values in the pastes, glues and mucilages made by a firm with 55 years' experience in supplying the adhesives requirements of a hundred industries. Write us for the name of the nearest Arabol distributor.

# Adhesives? . . . ... ARABOL!





## A Production Chart on Every Worker Would Show How **HEAT-FAG** takes its Toll!

IF every plant executive could SEE how Heat-Fag cuts workers' efficiency and makes production sag—something would be done about it . . . QUICK!

Doctors know that the human body requires a constant balance of salt.

Sweating robs the body of salt. If this loss continues without replacement, it may eventually cause heat sickness and severe cramps. In a lesser degree it causes fatigue, lowered efficiency and a vague feeling of discomfort.

Thus, HEAT-FAG threatens EVERY worker who sweats. The remedy is obvious . . . replace the salt lost by sweating. The easy, inexpensive way to do this is to provide Morton's salt tablets in sanitary dispensers at all drinking fountains, so workers can help themselves.



### Place Morton Dispensers At All Drinking Fountains

Morton's modern dispensers deliver salt tablets, one at a time, quickly, cleanly, and without crushing or waste. Sanitary, easily filled—durable and dependable.

Morton's salt tablets contain the most highly refined salt, pressed into convenient tablet form, easy to take with a drink of water. They dissolve in less than 40 sec. after swallowing. Order direct from this ad, or from your distributor.

**DISPENSERS \$325**

500 Tablet size . . . . . \$4.00

**TABLETS—Case of 9000**

Salt Tablets . . . . . \$260

10 grain

Combination Salt-Dextrose

Tablets, per case . . . \$315

**FREE . . .** write on your firm letterhead for a pocket size sample tube of MORTON'S SALT TABLETS, and new folder, "Heat-Fag and Salt Tablets."

**MORTON SALT COMPANY**  
CHICAGO, ILLINOIS

## Behind the Counter They Go to College

(Continued from page 70)

ing apprenticeship is Mrs. Gladys Young, formerly personnel manager for Montgomery Ward in Oakland. Students are specially selected on the basis of background, personality, and intelligence. The merchandising class is the only one they attend, 15 hours a week, and in the afternoons they put their learning to practice in regular jobs which Mrs. Young gets for them.

### Insurance for jobs

OPPORTUNITIES for job training vary from city to city, according to local needs. In San Francisco, for instance, it was discovered that 30,000 individuals were earning their livelihood from the insurance business, and that 18,000 of this group were women, with jobs ranging from statisticians, clerks, stenographers, and telephone operators, to those of agents and brokers. The San Francisco Life Underwriters Association appointed an advisory committee to help President A. J. Cloud of San Francisco Junior College set up an insurance course. Well qualified students were permitted to spend part of their time in insurance offices. By the middle of the second year, 20 companies had entered into this cooperative program.

San Francisco Junior College calls in a committee of business and professional men, including representatives of organized labor, before a new course in vocational instruction is started. In planning its course in horticulture and gardening, the college consulted 25 landscape architects, nurserymen, gardeners, florists, and other specialists. Other committees helped plan courses in paint technology and oil station operation.

In Ogden, Utah, it was found that the average age of carpenters was 58, and that new carpenters were not being educated fast enough to replace those who were dropping out. Weber College accordingly got the carpenters together, including the president and secretary of the local union, and organized an advisory committee for setting up a two-year course in carpentry. They arranged for the class in carpentry to build a house, and for the class in electricity to wire it. When they found legal difficulties in the way, the advisory committee incorporated, bought a lot, had plans drawn, gave each boy a set of tools, and put him to work. That "class" is now under way.

Weber College already has 22 instructors taken from industry, giving courses in business, shorthand, typewriting, retailing, office machines, nursing, trade and industrial education, air conditioning and refrigeration, auto body reconditioning, automotive service and repair, carpentry, commercial art, general metals, machine shop, power machine operation, and welding.

The boys in the carpentry class are indentured as apprentices to local contractors, under union regulations and, in

their two college years, will gain half the experience required to become journeymen.

Courses in engineering and technology are given by 216 junior colleges. General engineering is offered by 65; aviation, 196; mechanical engineering, 34; electrical engineering, 29; civil engineering, 15; radio engineering, 12; chemical engineering, eight; building trades, 14; auto mechanics, 11; technology, seven; drafting, 13; mining, three; agricultural engineering, two; air conditioning, two; geology, two; navigation, two; and welding, six.

All the important oil companies of the area cooperate with Bakersfield Junior College, Calif., in providing practical field work and demonstrations for the class in oil technology. Students visit the wells, study machinery and methods of drilling, with explanations by experts.

Customers take their airplanes for overhaul and repair to the shops of the North Texas Agricultural College at Arlington, Texas, and to the shops of the North Dakota School of Science at Wahpeton, N. D.

Many parents of junior college students think "terminal education is fine—for other people's children," says Principal J. L. McCaskill of Meridian Junior College, Miss. "But if a business man will say to a student, 'You take a course in related training and I will employ you,' that is the best inducement."

About 25 per cent of Meridian students are taking courses in diversified occupations leading to employment in local industries.

Farmers also enter into the cooperative plan. In Hinds County, Miss., farmers cure their meat in a curing and cold storage plant conducted by Hinds Junior College at Raymond.

Eighty-three junior colleges offer terminal training in agriculture and forestry. There are 71 courses in general agriculture, 34 in forestry, and eight in floriculture.

### Doctors get trained secretaries

AN ADVISORY committee of 17 physicians in Montana, Colorado, Nebraska, California, Idaho, North Dakota, Wyoming, Texas, Washington, Kansas, and New Mexico assisted Northern Montana Junior College at Havre in planning a three-year course for medical secretaries.

Pennsylvania physicians provide office experience for medical secretarial students at Scranton-Keystone Junior College, La Plume, Pa.

"Sometimes everything went along smoothly," reported one of these girls. "Bills, reports, case histories, and diets were typed with few erasures; dictation was taken without too much longhand intermingled; laundry and salesmen were sent on their way promptly."

"Recording phone calls, which I learned was one of the most important duties of the medical secretary, was one



thing that I did as flawlessly as I knew how—except once; and that once paid up for all the faultless ones. It happened that two phone numbers and messages were mixed up when both were recorded on the same sheet of paper—something I had been warned against as a freshman. If I had not realized my error in time, the doctor would have prescribed cod liver oil for Lugger McDee's black eye and raw steak to build up Baby Jones."

This experience, between the student's freshman and sophomore years, helped her decide whether she could meet the strict requirements of the medical secretary's position.

Scranton-Keystone Junior College organized its medical secretarial course with advice and assistance from a committee of physicians and surgeons. For other courses it has had the advice of committees of lawyers, engineers, educators, business men, and clergymen.

Doctors' offices and hospitals in Chicago give apprenticeships to medical secretarial students from Herzl Junior College, a municipal institution.

Health service courses are given by 93 junior colleges. For medical secretaries there are 44; in nursing, 59; laboratory technicians, seven; civic health, two; physical therapy, one.

Five hours a week are required in actual service in a dentist's office as part of the training for dental assistants at Los Angeles City College.

This principle is also applied to students in the course for library clerical aides. Los Angeles stores enable merchandising students to earn while learning. Public health students have a simi-

lar opportunity. And southern California weekly and small daily newspapers give ten weeks of internship in the spring to students who are finishing the Los Angeles City College course in technical journalism.

Students in journalism at Eastern New Mexico College run the beats of regular reporters on the Clovis *News-Journal*, the Portales *Daily News* and the Portales *Tribune*.

### Wide training is given

COURSES in journalism are given by 86 junior colleges. In librarianship there are 47; social service, 28; recreational leadership, 20; mortuary science, ten; religious education, nine; police service, eight; military service, three; civil service, two; music, 145; art, 100; architecture, 30; speech and dramatics, 24; photography, 16; interior decoration, six; fashion illustration and costume design, seven; teaching, 161; physical education, 63; general culture, 146; home economics, 136; printing, four; cosmetology, six; parish secretaryship, four.

"The time is apparently here when we must find youths for jobs rather than jobs for youths," says Dr. Rosco C. Ingalls, director of Los Angeles City College.

"This situation is developing from industrial activity growing out of national defense needs. It is due also to current trends in business in the retail trade division, in electrical equipment fields, in low cost housing projects, as well as in other fields now attracting the consumer's increasing buying power."

## A city grows up to its boom

**D**EFENSE pressure on municipal services and facilities is eloquently exemplified by situation of Alexandria, La. In immediate vicinity are three army camps with 125,000 men booked for training. City's normal 27,000 population has been swelled by influx of thousands of workers required for camp construction. Position of the mayor: "What the Army wants, we want."

### More policing obtained

TO MAINTAIN order, city increased police force from 25 men to 40, added seven squad cars and several motorcycles. Hundreds of prostitutes and other undesirables have been forced to leave town.

City auditoriums and school buildings have been made available to army officers as recreational centers. Several recreational centers are to be built at city expense.

Surfaced streets have been cut through by traffic, resurfaced, and cut through again. City, parish and state face job of widening streets and roads. To meet traffic problems, one-way streets were designated, traffic lights added, new restrictions placed on parking. State and

military police work with city officials in patrol and traffic regulation.

For fire protection, city assigned a water pumper truck for use at Camp Beauregard.

Crew of men handling garbage has been doubled, city disposal plant handles without charge most of the waste of one of the camps.

In November, 1939, building permits in the city called for \$31,000 worth of new construction. In November, 1940, building permits totaled \$73,000; in January, 1941, \$216,000, of which \$135,000 was for dwelling houses and apartments. City is now pushing for federal assistance in building 1,250 housing units.

Taxes have not been increased, as city-owned utilities apparently have borne cost. City-owned motor buses carry capacity loads. New water connections are made daily. Old users are taking greater volume. Demands for light and gas have increased at equal or faster pace. Two of the Army camps buy all their gas from city plant. Mounting demands for service have required greater plant facilities. Most important outlay was \$315,000 spent in bringing electric plant equipment up to date and enlarging capacity.

## FRIDEN Automatic Calculators



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# NO BUSINESS *Can Escape* CHANGE

Though some firms are sold out on defense orders, many are left to supply the consumers

1 • A NEW type house address number is made of a clear plastic which reflects scatter light so that it is clearly visible by day or night. The back is embossed with a series of tiny parabolas to catch and reflect light. Letters will similarly be manufactured.

2 • FOR electrical insulation requiring high heat resistance there is now a glass cloth impregnated with a high heat resisting varnish. It is available in half-inch tape and up to 36 inch wide rolls.

3 • A NEW file has slots between the teeth to allow chips to pass through. It works like a plane, will not clog on the softest metal. It is particularly efficient on non-ferrous metals formerly difficult to file and cuts plastics, hardwood, similar materials.

4 • A MULTIPLE-OUTLET electric plug is now made unbreakable by being of all-rubber construction with only small metal inserts. Spring friction blades provide permanently tight connections. It is molded in one piece, for three-way connections.

5 • FOR patching holes, ruts, worn places in concrete floors there is a new non-shrinking patch which adheres tightly to the concrete, sets up overnight, dries harder than the concrete, and withstands industrial traffic.

6 • MAPS, charts, sheet music, other paper may be made to glow readably under a "black" ultra-violet light. The paper is dusted with a powder that does not alter its color appreciably and is permanent under normal conditions.

7 • NOW a C-clamp is made with a locking device which opens and closes instantly to hold any material from the smallest to full capacity. It has a spatter-proof pressure bar and foot to eliminate troubles in arc welding.

8 • A NEW catch lock to hold doors open has a simple strike plate on the door itself without prongs or hooks and a catch available for either floor or wall mounting. It can be operated with elbow or knee—the first push holds the door, the second releases it.

9 • FOR applying Vitamin B<sub>1</sub> to plants there is a wooden peg saturated with the vitamin which, when stuck in the moist earth of the flower pot or beside the plant, gradually releases the chemical.

10 • A MIDGET radio receiver for aircraft weighs but 18 pounds seven ounces complete with crystal equipment and mounts in the instrument panel requiring only 7½ inches by 6 inches. It has an interphone feature by which the flight personnel may converse while monitoring incoming messages.

11 • A NEW remover for finishes is said to have extraordinary solvent power enabling the removal of many coats with one scraping. It leaves no waxy residue, does not need washing or neutralizing and a new finish can be applied immediately. It is said to be proved harmless to wood or metal.

12 • FOR making shoestring slices of potatoes or vegetables there is a novel gadget which when slipped over a paring knife blade will make six even slices at a cut. It is steel and nickel plated to prevent rust and stain, has no cavities to make cleaning hard, works equally well for right- or left-handed persons.

13 • TO PREVENT condensation drip from metal surfaces there is a spray-on plastic compound containing specially

treated cork particles. It can be applied to any metal surface, is said to need no upkeep, to have unusual adhesion. It is recommended for freight cars, ships, trucks, air conditioning ducts.

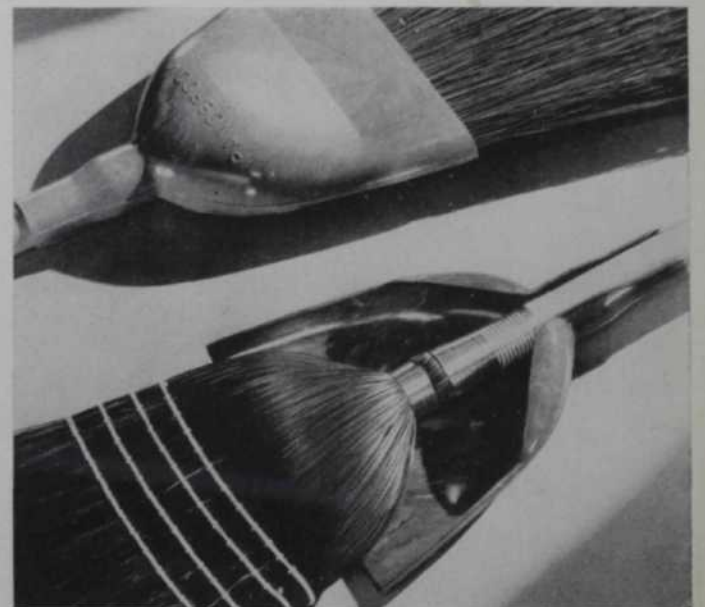
14 • A BANK for coin savings is now made of a transparent plastic with separate compartments for nickels, dimes and quarters so that they will stack. Figures on the sides indicate the value of each denomination of coin deposited. Molded in two halves, it is fastened with a lock operated by a small key.

15 • FOR sash windows there is now made a flat slightly curved bronze spring which holds the sash in place even though the sash cord is broken. It requires no mortising or recessing for installation.

16 • FOR the executive's desk there is now made a closed sanitary stand for paper cups to replace the familiar dust-catching drinking glass.

17 • COTTON treated to make it fire resistant is used in a new form of insulation which also resists water. It will be sold in blanket form rolls of various widths and thicknesses and with any of several types of backing. It may be useful in many types of insulation including refrigerator cars and building.

—W. L. HAMMER

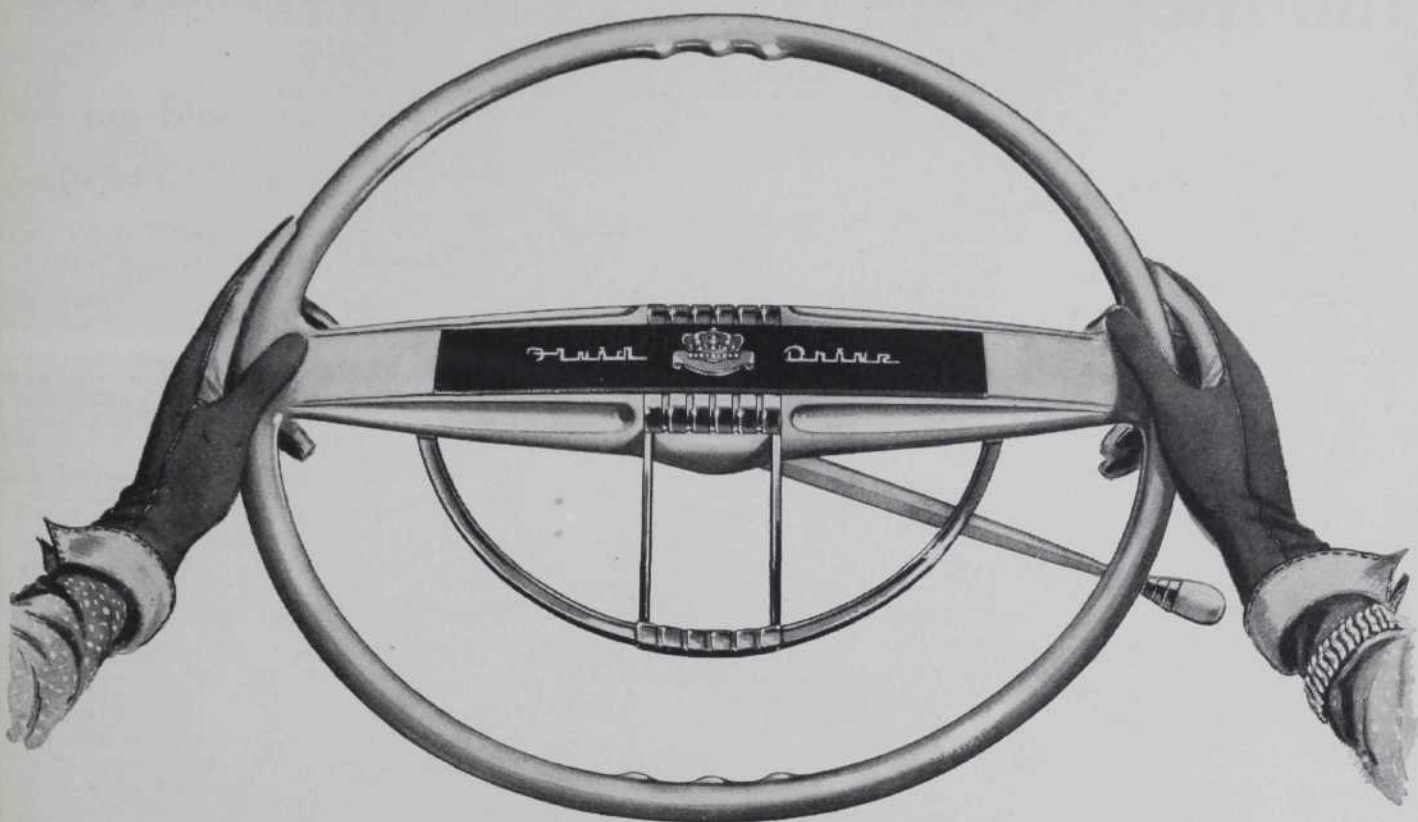


18 • A DUSTPAN is now made of molded plastic so that it fits over the neck of the broom where it is out of the way yet convenient whether the broom is in use or put away. The plastic dustpan is strong and durable yet said to be less abrasive on wood finishes than metal.

EDITOR'S NOTE—This material is gathered from the many sources to which NATION'S BUSINESS has access and from the flow of business news into our offices in Washington. Further information on any of these items can be had by writing us.



# Nobody Working Here!



## You steer... *Fluid Drive* does the work!

YOU'RE not at work, when you're *Fluid Driving*. You're steering today's most ingenious and obedient car . . . and you'll get a big kick out of it!

*Fluid Drive* is the first new motor car feature in years that does something really big for the driver!

You never quite get over the wonder of gears that are shifted for you . . . of power applied through oil, so smoothly that you can't make it jerk or buck!

### WHY SHIFT GEARS?

You put on the brakes for a traffic light . . . but you stay in high gear position! You glide away again when the light changes . . . but all you've done is to step on the gas!



**\$945\***

FOR THE  
3-PASSENGER  
ROYAL COUPE!

In all your normal driving, you drive this way . . . and you realize what a lot of tiresome work there is in ordinary driving . . . and what a relief *Fluid Driving* brings.

Try *Fluid Drive* with Vacamatic transmission at your Chrysler dealer's. It's standard equipment on most Chrysler models this year and only a few dollars extra on the lowest-price Chryslers. So it's quite inexpensive . . . and so delightful you'll never want to go back to the old-fashioned way of driving.

Your nearest Chrysler dealer is waiting for you to know all about *Fluid Driving*. A phone call from you will bring a Chrysler to your door!

### FOR SAFETY!



Chrysler's Safety Clutch is like a lifeboat on a ship. You will use it very seldom, but you're mighty glad to have it when you need it. A very valuable safeguard for parking . . . for maneuvering your car in close quarters or dangerous places!

★Tune in on Major Bowes, Columbia Network, Every Thursday, 9 to 10 P. M., E. D. S. T.

\*All prices delivered in Detroit, Federal tax included, transportation, and state or local taxes extra. *Fluid Drive* and Vacamatic transmission available at slight additional cost on Royal and Windsor models. Prices subject to change without notice.

**BE MODERN—**with *Fluid Drive*  
and Vacamatic Transmission—

# Buy Chrysler!



# The Map of the Nation's Business

By FRANK GREENE

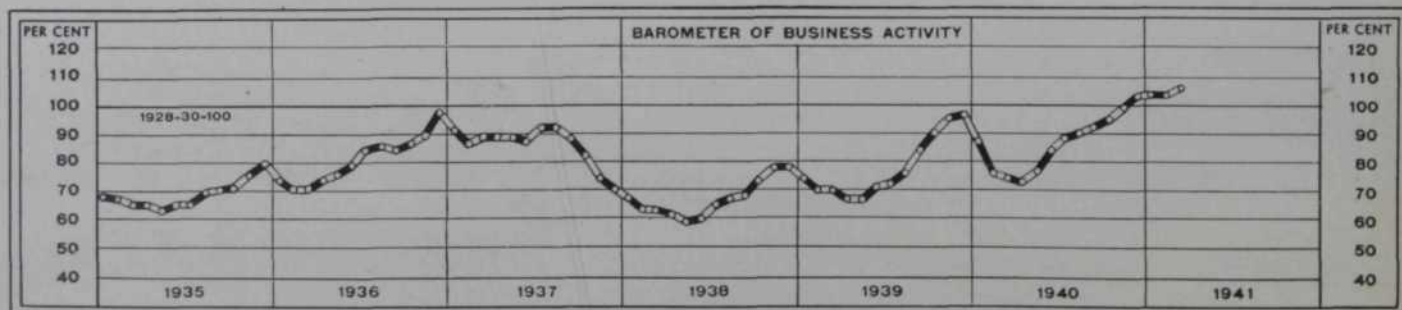


MARCH registered no major change in the general industrial situation. Productive capacity increased slowly as the armament program forged ahead amid growing labor unrest. Steel production recorded the highest rate in history and backlogs continued to rise, with outstanding demand coming from the automotive industry. Retail automobile sales were 30 per cent over a year ago, set a new peak for March. Carloadings registered a new high for the year.

Power output was 15 per cent above 1940 and the oil industry felt an increasing demand with prices generally higher. Reflecting enlarged defense building, engineering awards jumped 152 per cent above March, 1940, the total being the third largest on record.

A three-year high was reached in commodity prices with advances in both textiles and foods. Wholesale markets were active while retail sales improved over a year ago despite the later Easter this year. Bank transactions recorded a general rise of about 18 per cent.

The relatively unchanged Map depicts the continued high level of industrial activity and higher farm income



Despite scattered labor difficulties, business and productive activity during March held well above the corresponding 1940 level and the Barometer chart line continued its steadily rising trend





## THE WORLD'S "Fightingest" BOMBER

IS BREAKING PRODUCTION RECORDS, TOO

Facts on the performance of this great ship are secret. But—

**SPEED?** The Army says its new Martin B-26 medium bomber is "faster than many pursuit planes now fighting in Europe."

**BOMBS?** Nearly double the capacity of its nearest American competitor, giving it "striking power unequalled in a medium bomber."

**DEFENSE?** Fire power from numerous gun positions firing in every direction, making it the most heavily defended airplane of its class.

**TURRETS?** Yes, large guns in a tail turret for rear defense, and Martin's power-operated twin-gun turret for defense in the upper hemisphere.

**BULLET-PROOF FUEL TANKS?** The B-26 carries its entire fuel supply in the latest development—Martin's "Self-Sealing Mareng Cells."

**ARMOR?** All Martin fighting ships carry armor for the pilots and gunners—protection for our skilled crews in combat.

Great airplanes like the B-26 do not "just happen." They grow from years of study, research, experiment, "planning for the future." The B-26 started as a U. S. Army "Type Specification"—a set of tactical requirements growing out of intensive study of what the airplane of the future would have to do in aerial combat.

**DEFENSE IS ON THE WING!** Huge new Martin Patrol Bombers for the U. S. Navy (below), as well as Bombers for Britain's R. A. F., are coming from Martin assembly lines in numbers never before equalled in the production of large military aircraft.

To this Martin added a quarter century of bombardment experience—a quarter century that saw the Martin Star and Circle proudly displayed on the world's most famous bombers; the Martin MB-2's of 1918-28, the Martin BM-1's of 1929-32, and the Martin B-10's of 1933-39—all airplanes that had set new world standards for bombardment performance.

From this foundation Martin not only conceived, designed and built the B-26, but with it tools and fixtures for manufacturing it efficiently, economically, in quantity.

As a result, the B-26 is being produced in formidable numbers now—on mass-production equipment more complete in its operation and more simplified in its usage than America has developed heretofore.

No, great accomplishments like the new B-26, or like Martin's swiftly multiplying facilities for mass-production, do not "just happen." Just as they are the fruits of experienced planning, so Martin airliners of the future—beneficiaries of today's great defense-time developments—will grow from seasoned study of the needs of the happier commerce of a world at peace.

THE GLENN L. MARTIN COMPANY, BALTIMORE, MD., U. S. A.



# Martin

## AIRCRAFT

Builders of Dependable



Aircraft Since 1909

TRADE

MARK



**WHAT WILL AN  
ALUMINIZED AMERICA MEAN  
TO THE CITY OF THE FUTURE  
...AND TO YOU?**

To meet the needs of the Defense Program and to provide for the normal requirements of peace, the aluminum industry is speeding up a vast expansion of its already greatly-increased capacity. As part of the industry, this company alone is investing more than one hundred and fifty million dollars.

Right now, if your business does not contribute directly to the national defense, you may not be able to get *all* the aluminum you want, *when* you want it. But when this emergency is over, America will have more aluminum than was ever available before. The very abundance of this economical metal will bring countless new uses that will make this an Aluminized America.

Here are some facts that foretell what this future may hold:

**Aluminum Reflectors** behind fluorescent tubes on sides of buildings may illuminate streets. This will give a better distribution of light and clear streets of lampposts . . . Permanent traffic markings of aluminum powder mixed with bitumen may eliminate painted lines.

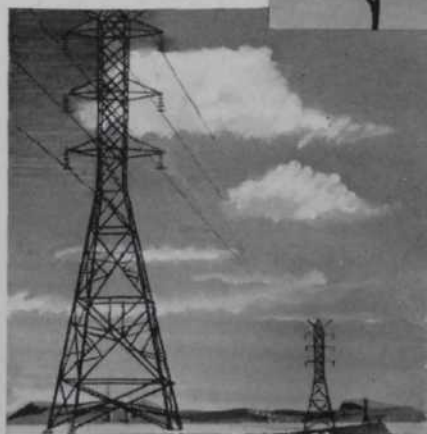
Overloaded city bridges will be adapted to modern traffic by reducing deadloads with aluminum floor systems. This has already saved \$1,500,000 in one bridge alone. A plan for double-decking another bridge with aluminum alloys will save even more.



**Mass Transportation** is a city's biggest problem. Rapid transit cars of aluminum alloys will cut tons of weight per car and save hundreds of thousands of dollars a year in power costs. These light, smaller-motored cars can make local stops on express schedules . . . Buses, too, will be improved by use of strong aluminum alloys, in chassisless construction with axles, wheels, motors mounted directly on bodies . . . Aluminum mail planes landing on post-office roofs already foretell rapid delivery for city freight and express.



**Aluminum Electrical Devices** in smokestacks take out most of the soot. Their wide use will make cities less smoky . . . Aluminum's ability to resist corrosion makes for economy in building and maintaining sewage and industrial plants. More sewage plants will make rivers useful for water supply, boating and recreation.



Power will be shifted from city to city in case of floods, other emergencies, or sudden power needs. Electrical energy at unheard-of high voltages will come in on light, strong aluminum cables to aid television, high-fidelity broadcasting, to increase motor efficiency and to lighten and brighten the city of the future.

**Here are 12 Economic Advantages of  
Aluminum, which will help  
City-Planners to Create an  
Aluminized America**

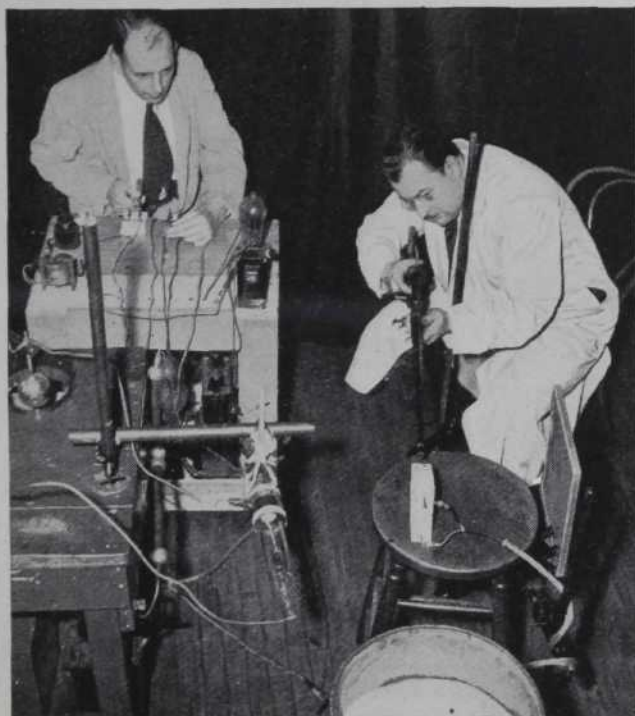
- Light Weight
- High Resistance to Corrosion
- High Electrical Conductivity
- High Conductivity for Heat
- High Reflectivity for Light and Radiant Heat
- Workability
- Non-magnetic
- Non-toxic
- Strength (in alloys)
- Non-sparking
- Appearance
- High Scrap and Re-Use Value



**A L U M I N U M   C O M P A N Y   O F   A M E R I C A**  
2125 GULF BUILDING • PITTSBURGH, PENNSYLVANIA



# X-Ray Eyes for Industry



Preparing to take a "still" photo of a bullet as it passes through wood

**S**TRIVING for greater reliability and fewer costly errors, industry, through the use of the X-ray, has found a way to see inside its products. Placed side by side, two manufactured articles may appear to be identical. But the penetrating X-ray shows up clearly the defects of one, the perfection of the other.

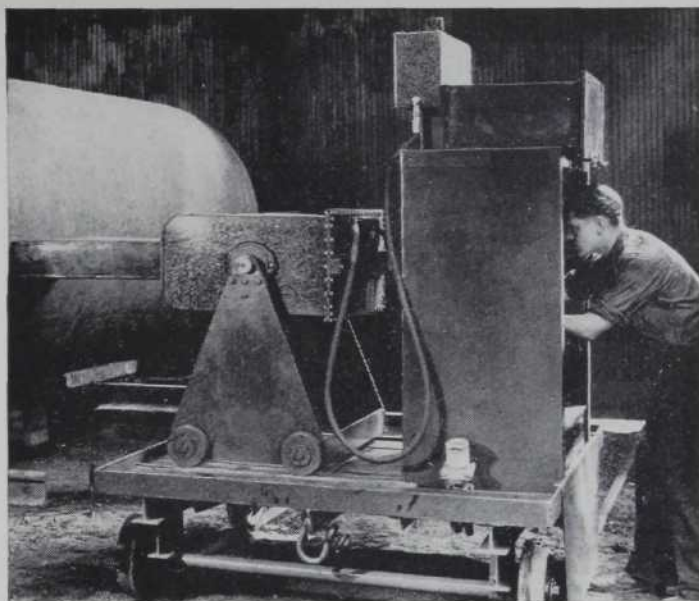
The X-ray camera and the fluoroscope have invaded a dozen fields. Aviation has taken the guesswork out of airplane construction through the use of the X-ray. In one plant alone, 45,000 parts are X-rayed each month, from the vital structures of the engine to the latch on the plane's cabin door. No part which has passed the X-ray test has ever proved faulty in use.

Welding on the whole is strong. But sometimes there is a weak weld which, in a construction job, could be disastrous. Here, too, the X-ray is used to eliminate faulty work.

An X-ray machine disclosed a broken light bulb which had fallen into a salt barrel in a large creamery where glass had been found in the butter. Through the use of the X-ray device, one major problem which plagues the food manufacturers, that of foreign substances in their products, has been largely eliminated.

In scores of fields the X-ray camera plays a part in solving industry's problems. It inspects oranges for defects, potatoes for black heart. Pearls in oysters are discovered through its use and simulated pearls are easily told from the real gems. Golf balls with off-center cores are quickly detected. Insulation on electric cables is rigorously checked. Telephone instruments are inspected with the help of X-ray before they are sent out for installation. X-rays are boosting sales in many shoe stores which insure a correct fit by X-raying the customer's foot.

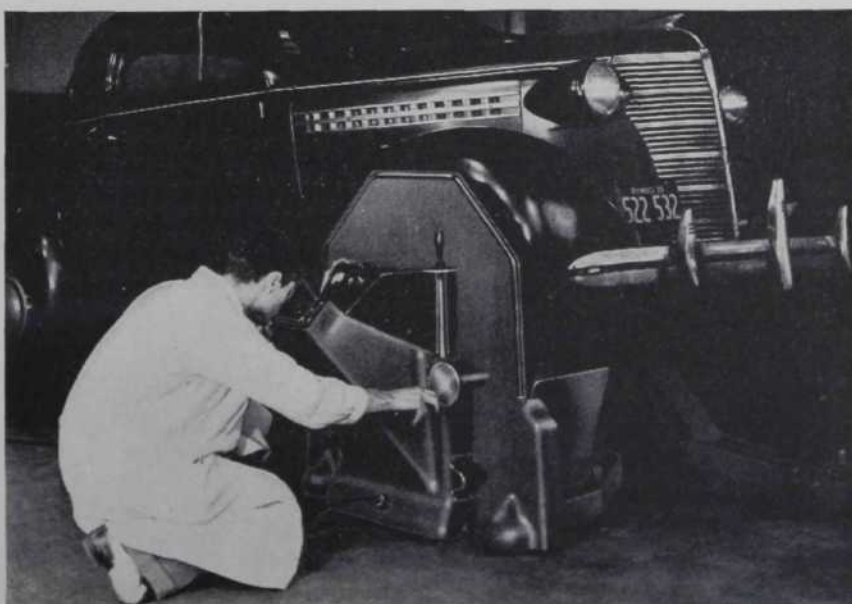
—NORMAN V. CARLISLE



A truck-mounted unit, operating at 200,000 volts, is used for radio-graphic examination of welds



In the X-ray department of an airplane factory parts are carefully checked before they are put into use



A Tire-O-Scope checks the front wheels of a car for such things as breaks in tire wall, nails and glass



**Your trip can go on!**



The reckless swerve of an oncoming car — a passenger hurt — and you, in a strange town, in the stern hands of the law. . . . Here, again, Standard Service Satisfies.

For throughout North America, helpful representatives are ready to assume responsibility — release your car if possible — defend you in court — adjust lawful claims — send you on your way!

Invest now in Standard automobile insurance. The Company's selective ratings and Safe Driver Reward provide security at low cost.

Standard Accident of Detroit offers other protection — against loss from embezzlement, forgery, burglary and robbery, individual or group accident and sickness, and similar hazards. Consult a Standard agent or your own insurance broker.

**STANDARD ACCIDENT INSURANCE COMPANY**

*Standard Service Satisfies . . . Since 1884*

## Danger: Men Not at Work

*(Continued from page 16)*

ers. Another part of the truth is that, unless we work with united effort marshalling all of our resources of men and materials, producing to the limit, we will probably find ourselves involved in a war we cannot win.

We are all in the same boat. The boy who goes out from the home of a man who works in the factory will be just as much in danger if he is not properly equipped as the son of the company president. Before we get through with this job, these boys whom we are putting into uniform may not be knocking off at five o'clock; they may be standing the long night watches waiting attack by those who are not afraid to challenge an unprepared America.

Another part of the truth is that, if we are called to do battle and do not win, there will be no profits to scramble over; there will be no social gains to fight about. There ought to be a general truce as far as possible—and it should be possible—in this economic civil war until, by united effort, we shall have made our common interest secure. It is not a matter of theory. Look at France today and see how many people there have any property to quarrel about or any social gains to protect.

### Laws are not sufficient

A GOOD many people are pressing for additional legislation now. In this country enacting new laws is a sort of fetish. The country, through its Congress, has already provided the men. It has provided the money, \$11,000,000,000—twice the value of all the farm lands in the original 13 states.

More laws will not do this job.

It can be done only if the people of this nation stand together in this hour of peril; if the executive agencies of the Government—because this is an executive job—bend every energy to get these plants into operation and keep them in operation; if we persuade those who may be persuaded as to the perils in which they are placing this country, and treat those who will not be persuaded as the enemies of a great republic that is fighting for its life ought to be treated. Whatever additional power the Executive needs to do this job the people of the nation, acting through the Congress, will give, and give quickly.

This is the day and the hour when the American people cannot count costs. All over the world men are dying that people may be free. No one in any office or out of it should be permitted by public opinion to stand guarding anybody's position of policy as against the imperative necessity for the greatest possible efficiency and haste in the preparation for the preservation of our nation—preparation for every possible emergency. I do not care who he is or where he is. Individuals do not count. These are times when people who are fit to live are



willing to die for the things which make living worth while.

We must work now to the limit of human capacity as though we were actually fighting. This is the only chance we have to escape having to fight. There is nobody from the President down who can fail to appreciate that this nation is being led, or moved, with tremendous rapidity toward the battle line of this World War, and yet, in the factories men are fighting among themselves. They will not work or permit others to work and are thereby possibly losing for their country the decisive battle of the world's greatest war. Men whose sons will be cannon fodder unless we are prepared to protect ourselves against attack are doing this. It is an hour of dedication in America, an hour of sacrifice, an hour of high purpose. It is an hour when the owner of the factory or the operative who would hinder his country's preparation for the supreme test of its ability to endure is unworthy of the opportunity to live as a free man among the millions willing now to die if necessary that freedom may survive.

We know we do not now have the equipment to defend our ports against a major attack. Yet here we are, half working at the job, talking about social gains when we ought to be talking about sacrifice and service. We will know what those things mean before we get through. The French people learned it, too late. It is up to the American people to determine whether we, too, will learn it too late. We cannot preserve ourselves unless we profit by the experience of France. We cannot do it unless in America, from coast to coast, regardless of personal interest, there springs again in the hearts of the people that holy love called patriotism.

It is absolutely essential that the loyal element in labor if possible, and it is possible, be cut away from those who would do this country hurt. It is a pretty delicate matter to be dealt with. In large measure that is a job for their own thinking and for public opinion. Public opinion is rapidly coming to the conclusion that a better method than strikes must be found to settle disputes in these industries which are producing essential materials. Labor had better heed the warning which I presume to give as a friend: That it is throwing away the support of public opinion so rapidly that soon public opinion will not consider as "scabs" people who are going in to work in these closed-down industries. They will consider them as patriots responding to the call of their country's need.



## ...and the hand that holds the throttle helps **CLOSE THE SALE**



*An Erie Engineer speaking: "A big sale it was, too, son. The first order our shipper had received from this firm down East—a trial order, I believe. And it just had to be delivered on time! That's where we came in. We delivered on time the first time and helped close the sale. Might say we help hold that business, too—by delivering on time."*

★ ★ ★ ★

To the man in the cab goes much of the credit for Erie's amazing year-in-and-year-out record of on-time deliveries. There's a schedule to keep—and Erie's high-speed freight schedules call for no delays. So the hand on the throttle is mighty important to every shipper.

Not only the engineer but every man on the Erie is wedded to the creed—the freight must go through safely and on time. When time means money—when the sale hinges on fast delivery, call *your* Erie Agent. He will handle *all* your shipping problems. Park your worries with him. Or write

Carl Howe, Vice President, Erie Railroad  
Cleveland, Ohio

## Swapping Airplanes for Rubber

(Continued from page 26)

Rubber, tin and wool are the chief imports. Coffee imports set a near record last year.

Exports to the United Kingdom (does not include Canada) increased nearly 100 per cent for a total of almost \$1,000,-







### ... for Marcia Dane, R.N.

DR. ALDEN has almost as many nose and throat patients as a free clinic. Miss Dane, his able assistant, answers phones, cheers up children, sympathizes with the sniffers, arranges appointments, sterilizes the instruments, stalls off salesmen, keeps the records, and smiles frequently. But getting out the bills to hundreds of patients at the end of the month, sealing envelopes and sticking stamps at night, often makes the twelve-hour hospital shift seem soft!



WHEN Miss Dane learns about Postage Meters, we'll have another customer—quick. If regular or irregular mailings are a burden in your business, you need a Postage Meter, too. With a Postage Meter, you don't buy, keep or stick ordinary stamps; you do save time and usually postage.

Your postage is protected always in a Meter, has no value except on your own business mail. The Meter supplies any postage for

any kind of mail, including Parcel Post. It prints stamp, postmark and small advertisement directly on the envelope, and seals the flap—all in the turn of a die.

It keeps its own records, takes little space, needs no experience to operate, costs mighty little for the convenience, the satisfaction and service it gives... A word to the nearest Pitney-Bowes office will bring a demonstration of a Postage Meter in your own office... or send the coupon!

...Pitney-Bowes Postage Meter Co.,  
1328 Pacific St., Stamford, Conn.... Branches in  
principal cities. Cf. phone directory. In Canada:  
Canadian Postage Meters & Machines Co., Ltd.

### The Pitney-Bowes POSTAGE METER



Pitney-Bowes Postage Meter Co.  
1328 Pacific St., Stamford, Conn.

- ☐ Mail me "The Great Grimbstone Survey"  
☐ When may we have a demonstration?

Name \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_

000,000 and the Netherlands Indies likewise increased their purchases from one-third to more than one-half million.

As a follow-up to the Good Neighbor policy and development of South American markets, U. S. traders have been pushing trade with their Latin neighbors. Exports to Latin America increased from \$569,000,000 in 1939 to \$727,000,000 in 1940 and imports advanced from \$518,000,000 in 1939 to \$620,000,000 in 1940.

This represents a 47 per cent increase for exports and 37 per cent for imports over 1938 when there was little war influence. Iron and steel, automotive products, machinery of all kinds, coffee, sugar, copper, petroleum, wool, hides, cocoa, sodium nitrate, and bauxite played the greatest part in this interchange of goods. Money spent by travelers to South America alone increased from \$11,000,000 in 1938 to \$16,000,000 in 1939, but dropped to \$13,000,000 in 1940. Incidentally, money spent by travelers to all South America is much less than spent in West Indian travel where Americans put out \$49,000,000 in hard cash in the past year.

### Heavy restrictions on trade

ONE serious worry to traders is the increasing number of export and import restrictions, controls and quotas imposed by foreign governments and our own in the interests of national defense. Some 50 per cent of our export trade is subject to export control. Some items cannot be exported under any circumstances and it is necessary to draw fine lines of distinction on others. For example, bullet-proof glass must be licensed, but non-shatterable glass such as that used in automobiles does not. The same distinction is made between ophthalmic glass used in spectacles and that used in range finders. Crêpe rubber must be licensed if shipped in unfinished form, but unlicensed if cut into shoe soles.

The shipping situation is getting tighter on imports due to the necessity for transporting certain materials which are listed by the Government as either strategic or critical, but as of this date there is no serious pile-up in port warehouses. There is also a decline in the number of foreign vessels entering U. S. ports, but American flag vessels are rapidly picking up a greater portion of the load with more than 300 ships now carrying the burden of U. S. foreign commerce.

The amount of imports which must be made this year, according to the O.P.M., reaches the enormous total of 19,000,000 tons or approximately 2,500 shiploads and includes such items as teakwood, tanning materials, pulpwood, sugar and coffee in addition to such obvious products as manganese and rubber. The problem of adjusting cargo space so that ships will travel in ballast as seldom as possible is getting tougher every day, but if more rubber, tin and tungsten must be brought in from the Far East, more copper from S. A., more manganese from Africa, shippers must strive to find a way to use the outgoing cargo space in order to keep their goods moving at a fairly normal pace.



## The Price Question and the Lumbermen

**T**HE LUMBER industry was singled out several months ago as an offender against the Government. Its prices were too high, said Leon Henderson.

Mr. Henderson also told a Washington columnist last January that the hike in lumber prices had cost the Government \$50,000,000. Up to January 1, all Government purchases of lumber totaled \$56,000,000, according to the record. If the so-called overcharge of \$50,000,000 were subtracted from the total there would be left \$6,000,000 to buy the 2,000,000,000 board feet of lumber which had been purchased up to that date. The buying of 2,000,000,000 board feet of lumber for \$6,000,000 would provide a laugh even for a movie audience.

Such loose statements uttered pontifically by a public official unfortunately give the public the impression that business men are profiteering on war supplies. The public isn't told by the same government sources that the average price at the mills on the West Coast of fir and West Coast hemlock, for example, has been \$22.25 for 21 years. With the wage scale doubled and sometimes tripled, the 1940 average was an advance of less than eight per cent.

### More waste than high prices

IT HASN'T been told that the price of fir and southern pine which the U.S.Q.M. has been paying for its lumber has dropped since September, 1940, from \$41 to \$33 in February. The public doesn't know that prices advanced to this figure in September because of the Government's sudden demand for huge quantities of dry lumber, all of the same grade; that hundreds of carloads were consigned to sidings where there was only capacity for 25 or 50; that carpenters cut ten-foot lengths off 16-foot pieces instead of looking up the ten-foot piles. The ten-foot piles were left untouched and the six-foot pieces were worthless.

Nor is it told that, in making the original estimates for cantonment construction, nothing was allowed (ten per cent is normal for all construction purposes) for normal waste in the use of lumber; nor was allowance made for loss in extra footage needed where material is tongued and grooved.

Furthermore, lumbermen informed the Government as long ago as last September that there would be a jam unless orders could be given in advance and it is only within recent weeks that an orderly process of purchasing far ahead of delivery date has been evolved.

Consider the lumberman: He is threatened with jail by Thurman Arnold if he doesn't allow supply and demand to function freely, while another government official says that supply and demand don't mean a thing and that the lumbermen must combine to reduce prices.



## FACE THE FUTURE ★ FEARLESSLY ★

The fear of coming events shakes one's confidence. Executive planning, selling, and credit granting are slowed down by fears of credit losses under today's abnormal world conditions.

Such fears are unjustified. In peace or war, boom or panic, business has facilities for up-to-date credit information—plus protection on customers. Sell fearlessly to the deserving—and safeguard your Accounts Receivable with—

## AMERICAN CREDIT INSURANCE

With this complete protection you need not worry about your customers after the goods are shipped. Reimbursements for credit losses and liquidation of delinquencies keep your working capital free and unimpaired.

Manufacturers—Jobbers: "American" policies provide that reorganizations under the Chandler Act are considered equivalent to insolvencies. General Coverage and many other forms of credit protection are now available. Why not investigate this company's policies? For additional

information and your free copy of an interesting chart showing general business conditions during the past century, address Dept. 4 N.



### AMERICAN CREDIT INDEMNITY COMPANY OF NEW YORK

First National Bank Building, Baltimore  
J. F. McFadden, President

OFFICES IN PRINCIPAL CITIES OF THE  
UNITED STATES AND CANADA



# FASCINATING Québec



*Have you ever had a  
French Canadian  
vacation?*

This year . . . come to the homeland of the smart French Canadian homespuns shown on Fifth Avenue. Come to La Province de Québec, land of contrast, land of Old World charm. Here you'll turn aside to pass creaking ox-carts. In farmyards, you'll watch a French Canadian woman tend her stone bake-oven . . .

Yet turn a corner and La Province de Québec offers you another world—a world of luxury hotels, smart shops and swagger resorts.

3,000,000 French Canadians bid you come to the Old-World-in-the-New . . . where exchange makes dollars buy more!

**NO PASSPORTS REQUIRED  
BY U. S. CITIZENS**

For maps and descriptive literature, apply to your home travel agency, automobile club, Chamber of Commerce, railway, steamship or bus office, La Province de Québec Tourist Bureau, 48 Rockefeller Plaza, New York, or write direct to

**LA PROVINCE DE**  
**Québec**  
TOURIST BUREAU  
QUÉBEC • CANADA

## When the Boss Works Late

(Continued from page 19)

logical reason for not going the rest of the way. Admittedly it is a compromise. Nevertheless, it has been at least temporarily satisfactory in some companies.

Giving employees equivalent time off as compensation for overtime work has been a favorite expedient in numerous organizations. It is argued that this practice renders exact justice to the employee, since in the long run he works only the hours he is supposed to work, and his money income remains stable. Against these theoretical advantages, the plan has several practical shortcomings.

### Time off may not suffice

FOR one thing, equivalent time off is by no means always as important to the employee as the time he was required to sacrifice. If the president's secretary gets an order on short notice to work until eight o'clock Friday evening, thus breaking a dinner engagement with the boy friend who already has bought tickets for a show, it is scant compensation to allow her to sit idly in her room for the same number of hours next Tuesday forenoon.

Then, in busy times, overtime hours have a way of accumulating until an essential employee has so much time coming to him that the management finds itself embarrassed in trying to make good on its promise. This situation has been met in various ways. Sometimes the employer gives the employee an extended vacation, at whatever inconvenience to the business. Sometimes the accumulated time is commuted into a money payment, thus frustrating the

purpose of the equivalent time off rule. Occasionally the matter is just dropped.

Several companies replying to the recent inquiry reported that overtime work was taken into consideration in fixing the regular compensation of the higher salaried employees. Others said distribution of bonuses and shares of profits was made partly on the basis of the extra work a man had been required to do. These methods have many advantages which, however, are offset to some extent by the difficulty in reducing compensation at the end of an emergency which has necessitated overtime work. The worker comes to regard his salary as fixed and irreducible.

If all the methods that have been widely adopted are open to objections, is there any solution to the problem of compensating the exempt employee for overtime? Probably not, if by a solution is meant an invariable practice covering all circumstances and all types of employees. Probably it is a mistake to seek uniformity in procedure. It is better to consider different groups of employees separately and to decide upon policies with respect to each that will be as nearly as possible fair and satisfactory to the company and to the individuals.

For office workers in the lower exempted positions—those who are closest to the rank and file and whose duties differ only slightly from those of the non-exempts—probably the best practice is to pay for all overtime at the time-and-a-half rate. It is true that these employees are closely related to management, but they may be even closer to labor. In the matter of compensation, they are likely to be more interested in the size of their pay checks than



"I really think the teamsters' union is too strict. It really doesn't throw any of their horses out of work"



in the maintenance of their status in the managerial ranks. These employees have been subject to much exploitation in some companies. Overtime pay should be at the time-and-a-half rate rather than straight time, because the latter would be recognized as a compromise and would emphasize the more liberal treatment accorded to the rank and file.

In dealing with professional and administrative employees—mainly high salaried men who may be on the same intellectual and social levels as the top executives—a different approach is indicated. Many of these men would resent the offer of overtime or even straight time for the extra hours they spend at their desks. It may be appropriate to take their extra work into consideration in determining salaries or bonuses, although there is always the danger of embarrassment if compensation thus fixed has to be reduced. Probably the most important thing to do is to hold overtime work of these employees to the lowest possible minimums. Usually this can be done except in severe emergencies. If, in spite of this effort, a professional or administrative employee is required by circumstances beyond his and the management's control to put in an excessive amount of overtime, and is not otherwise compensated for it, he should be given equivalent time off (actually, not theoretically) at a season which is convenient to him.

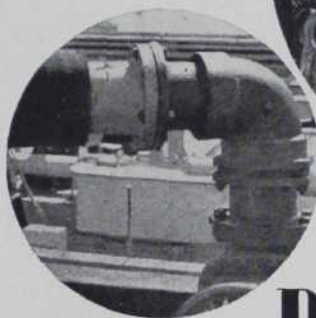
### The foreman is executive

THIS brings us to the most difficult question of all: what to do about the foreman? We should recognize at the start that the foreman of the kind we are talking about is really a production executive. His duties differ from those of the plant manager in degree rather than in kind. He is held responsible for production, for costs, and for labor conditions in his department or shop. There should be no question that he belongs to management rather than to labor.

This description of the foreman's position indicates the way to handle the problem of his overtime work. Probably in most cases it is better not to pay him time and a half or even straight time for his extra hours—unless the superintendent to whom he reports is treated in the same way. Instead, factory schedules should be arranged to hold habitual overtime work of foremen within reasonable limits. In this respect, too, treatment of the foreman and of his superiors should be in the same category.

Everything within reason should be done to build up the foreman's position as an executive. If he isn't of executive material, he should be tactfully transferred to some other job. In thus building up his position, management should make sure that his compensation is commensurate with the dignity and the responsibilities of his work. He should not be expected to work for a salary that is little higher than the wages of the men under him and that may be even below those wages with added overtime. Money spent in bringing foremen's salaries up to adequate figures often may be the most profitable investment a company can make.

## REPUBLIC MECHANICAL RUBBER PRODUCTS



ORDER REPUBLIC PRODUCTS  
FROM YOUR DISTRIBUTOR

# REPUBLIC RUBBER PRODUCTS FOR INDUSTRY

*The* development and manufacture of rubber products particularly suited to the needs of industry—that has been Republic's one line of endeavor for forty-one years. And over this period, Republic has become nationally recognized as both an authority on and a highly reliable source for this type of equipment. Today, more and more individual concerns, affected in varying degrees by the national emergency, are placing the responsibility for completely capable performance on Republic Belting, Hose and Specialties. Their confidence is being justified by maximum service life and efficiency . . . . .  
REPUBLIC RUBBER DIVISION  
OF LEE RUBBER AND TIRE  
CORP., YOUNGSTOWN, OHIO.

REPUBLIC  RUBBER  
LEADERSHIP IN POLICY  
PRODUCT AND PERFORMANCE  
HOSE • BELTING • PACKING • MOLDED PRODUCTS



★ ★ ★ ★ ★ ★ ★ ★ ★ ★

# And Now

## It's

## V-Day

Mobilizing the  
Vitamins . . . Mrs.  
Consumer "Totes"  
and Saves

**Bread spiked with vitamins** will soon be promoted in a big way. The idea of vitamins in the staff of life is not new in itself. Various dark bread varieties have long been recommended for their natural vitamin potency. But nutrition experts in the National Research Council, a semi-Government organization, have worked out what they believe is a practical means for supplying certain major diet deficiencies on almost a universal scale. In a joint three-way conference in Chicago they sold the plan to millers and bakers through their national trade associations.

Several elements of the Vitamins B and D families, such as thiamin, nicotinic acid, iron, riboflavin and calcium, are added



to flour in synthetic form. The nutrition experts say that the diets of at least one-third the people are deficient in one or all of these elements so important to health. That third, according to Dr. W. H. Sebrell of the U. S. Public Health Service, does not at all coincide with the alleged underprivileged third of the nation. Inadequately vitaminized diets extend through all economic strata, says the doctor.

Bakers will be asked to promote "enriched bread" individually in addition to the cooperative advertising contemplated by the American Institute of Baking. The Government will lend itself actively to selling the idea to consumers. Paul Cornell, former chairman of the American Association of Advertising Agencies, has been appointed as official liaison man between Washington and the two industries.

It is said that the vitaminizing process will add little to the cost of bread and may result in giving a boost to its consumption, at least enough to compensate for the slenderizing diet fad. The idea probably will be extended to all bakery products, and of course flour for home consumption will be vitaminized. Already the Indefatigable Doughnut Corporation has announced a vitamin doughnut.

A problem still to be worked out is how to comply with the Pure Food and Drug Act and label bread and flour for its content of nicotinic acid, against which there is a recognized public prejudice. It sounds too much like the substance in tobacco. But a way around will no doubt be found before V-Day, the date to be set for mobilizing the Vitamins.

**Quality and Service** seem to be losing some of the lure they were thought to have with consumers. Increasingly, the No. 1 sales appeal is Price.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

The case of Gerrit Vander Hooning is one of many that point strongly to that conclusion. For many years Mr. Vander Hooning has operated in Grand Rapids, Mich., one of the leading quality service grocery stores of that section. He is well known as the former president of the National Association of Retail Grocers and a member of the Domestic Distribution Committee of the National Chamber. He was losing trade to the chain stores and super markets, entirely because of price competition, he decided. Even many of his substantial and well-to-do customers were shopping around for bargains and giving him only part of their trade.

To meet this situation, "Van" converted his big store to a super market. Signs on his store front were changed to stress price: "Good Foods at Extra Low Prices," "Everyday Low Prices," "Shop and Save the Modern Way." Delivery service and charge accounts were not discontinued but in one year the proportion of credit business was reduced from 58 per cent to 28 per cent.

"And his customers loved it!" reports the *National Grocers Bulletin*. In that first year after the change-over, sales were increased by 34 per cent.

A similar evolution is taking place among the laundries. The drive-in, cash and carry idea was never very popular with launderers until the past two years. Now it is considered "the coming thing" in the trade.

A discount of 20 per cent from regular service prices is attracting an ever-increasing proportion of customers who go to business in their private chariots and use these convenient drive-in parking spaces where they can drop the weekly washing and come back for it later. The cost to a laundry of providing service to the customer's door is at least as much as the 20 per cent cash-carry discount. A good many launderers seem to think that

there are few opportunities for drastic cost-cutting in production; that, if the market is to be greatly enlarged, it must be through lower prices made possible by reducing the delivery function.

**Factory prices in auto ads**, with too many conditions tied to them in the text, are under fire from the Federal Trade Commission in an order directing General Motors to "cease misleading the public" on the prices of its cars. Reference is made specifically to complaints against ads published in the period 1934-39.

The Commission's position seems to be that, if the illustration shows a car equipped with guide lights and white-rim tires, for instance, without a conspicuous explanation in the copy that these features are extra, the ad will be considered misleading.

Beginning with the introduction of the 1939 model, the motor manufacturers reformed their pricing methods to prevent dealers "padding" the delivered price with items that could not be accounted for. Since then, some of them have made further voluntary concessions to objections emanating from F. T. C.

**Private brand merchandising** is attacked in a bill introduced in the California state legislature. It would prohibit a retailer from selling a product of his own making except at the place of manufacture and at one other establishment in the



same county. According to some interpretations, the "except" clause is a joker that really makes the bill more anti-chain store than anti-private brand.

A manufacturer who fixes the price of his product under the "fair trade" law, then packages the same product under a special trade name and permits another competing dealer to sell it at a cut price was criticized by a state court at White Plains, N. Y. But the court found itself obliged, under New York's Feld-Crawford act, to grant an injunction prohibiting the regular dealer from meeting the private brand price on an identical product.

**Waste blank space** on interstate transport trucks and trailers will be utilized as a new advertising medium under plans announced by R. F. Nylen of Chicago, for United States Traveling Ads. One of the largest carriers, Keeshin Motor Express and its Seaboard Freight Lines subsidiary, is among those in the network.

—FRED DEARMOND



## Priorities shoe pinches all feet

**B**IGGEST word in defense lexicon is "priorities." How its definition by official interpreters in Washington is drastically revising usual practices and raising new problems is currently demonstrated in rationing of aluminum, now completely at O.P.M.'s discretion.

Among non-defense users, bus operators' case is representative. Trade spokesmen are National Association of Motor Bus Operators and American Transit Association, whose members report their 54,000 units are under same regulation as other public carriers.

Appraising immediate possibility of aluminum famine induced by O.P.M. ruling, bus men put situation before minerals and metals chiefs in Priorities Division, set 1,000,000 pounds of aluminum a month as minimum requirement for repairs, replacements, and new vehicles to carry workers to and from defense plants.

Figure is equivalent to 2.5 per cent of nation's normal monthly production, is approximately 1.6 per cent of scheduled stepped-up capacity.

### Substitutes and complications

**FAILING** adequate allotment of aluminum, use of substitutes would be imperative.

Train of complicating consequences, as seen by operators, includes: Increase of gross weight of vehicles in excess of state limitations—greater weight would require larger tires—larger tires would mean wider bodies—wider bodies would invite conflict with state laws; weight to horsepower ratio would be upset—would mean entirely new specifications for engines and running gear—would signify large additional consumption of gasoline; substitution of heavier metals would necessitate extensive retooling—would put fresh burden on machine tool industry already overloaded; highly trained workers would have to be laid off—would result in possible permanent loss of production personnel.

As matters stood at mid-March, bus manufacturers needed 9,091,000 additional pounds of aluminum to fulfill construction and service requirements scheduled at year's beginning. Some makers were worse off than others because priorities order caught them with many vehicles in process of fabrication with aluminum.

Flight of small plane makers and kitchen utensil producers has made its own front page news.

"Business as Usual" is plainly out for the duration of the defense program, as the business community learned in the domestic upheaval preceding the first World War.

Not so clear to the people is the certainty that the dislocation of the national economy under the duress of a war psychology affects all lives and fortunes, however obscure, however remote from the founts of public policy.

## Don't leave it all to your watchman!



*Help him keep out thieves, saboteurs, marauders—enclose your plant with Cyclone Fence*

**N**EVER before has it been so important to guard your plant closely 24 hours a day. The surest way to have full protection day and night is to put a high barrier of Cyclone Fence around every bit of your property. Then your watchman can check every person, and every load that passes through the gates.

U-S-S Cyclone Fence is chosen by more plant owners than any other fence. For they know there's real economy in fence that will function properly year after year with practically no upkeep. Cyclone Fence is built for durability. The copper steel wire mesh is galvanized after weaving, to prevent cracks which would allow rust to start. Husky H-column posts are set in concrete bases that frost won't budge. Gates swing freely on ball-and-socket hinges so mounted that the weight of the gate does not hang from the post, but is carried directly to a solid concrete base.

**QUICK DELIVERY**—Our huge production facilities enable us to meet almost any emergency delivery requirement. And our erection service provides the skill of trustworthy, factory-trained men who build fence quickly—and right.

Perhaps you wonder about the cost. We can give you fence of famous Cyclone quality at a price comparable to any of similar designs. That's why it is important that you get a Cyclone estimate before you buy any fence. Write now—there's no obligation.

**CYCLONE FENCE DIVISION**  
(AMERICAN STEEL & WIRE COMPANY)  
Waukegan, Ill., Branches in Principal Cities  
United States Steel Export Company, New York



**CYCLONE'S** sturdy spring coupling compensates for expansion and contraction of top rails due to extreme temperature changes. It prevents bending or breaking of rails—reduces upkeep costs.



**THIS SYMBOL** represents the finest quality galvanizing money can buy. "12M" fights rust, makes your fence last longer and saves you money. Get the facts about Cyclone's "12M" galvanizing before you buy any fence.

### 32-Page Book on Fence



Send for our free 32-page book that tells all about fence. Crammed full of facts, specifications and illustrations. Shows 14 types—for home, school, playground, and business. Whether you need a few feet of fence or 10 miles of it, you need this valuable book. Buy no fence until you see what Cyclone has to offer.

**CYCLONE FENCE**  
Waukegan, Ill. DEPT. 551  
Please mail me, without obligation, a copy of "Your Fence—How to Choose It—How to Use It."

Name.....

Address.....

City..... State.....

I am interested in fencing: ☐ Industrial; ☐ Estate; ☐ Playground; ☐ Residence; ☐ School.

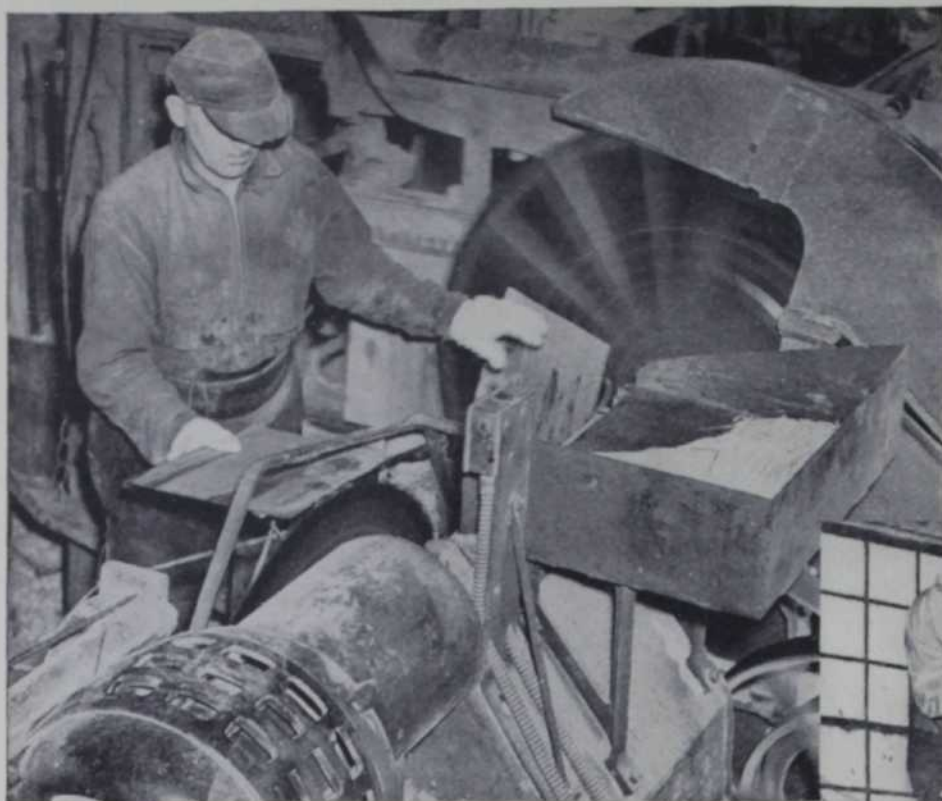
Approximately .....feet



# CYCLONE FENCE

## UNITED STATES STEEL





## Men Still Boss Their Machines

Machine is complicated and efficient but each block of wood requires separate treatment

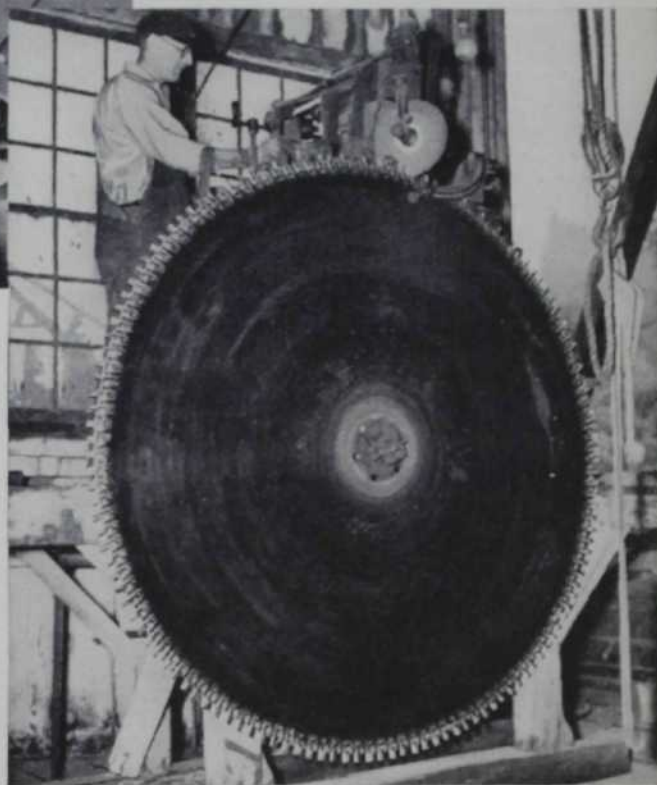


A packer builds up each bundle of shingles

**T**HE RED CEDAR shingle industry of the Pacific Northwest is one of the few manufacturing processes which have defied inroads of the machine. A pride of workmanship almost without parallel in any other business is found throughout the industry.

This enterprise of considerable proportions, turning out somewhere between 4,000,000,000 and 5,000,000,000 shingles yearly, is confined to the states of Washington and Oregon and the province of British Columbia because the giant western red cedar trees grow in commercial quantities only in this area.

Due to the nature of the involved operations in the manufacture of red cedar shingles the ratio of men and machines



Sharpness of saw depends upon ability of workman to operate an automatic gummer

has changed little in the past 50 years. Different types of machines have been introduced, but no equipment has yet been devised to take the place of the "shingle weavers," as the mill workmen are known.

When the logs are drawn from the mill pond into the factory, large circular saws cut them off into sections of desired shingle length.

A skilled shingle sawyer slices off shingles with amazing speed and precision, but even here it is the operator rather than the machine who determines the quality of the shingles. He tends two saws, adjusts their cutting rims, squares the edges of the shingles, trims out all knots and defects, grades the shingles, and handles a myriad of other tasks which a machine cannot possibly accomplish.

From the sawyer the shingles go scooting downstairs to the packing room where they are assembled in frames and bound into bundles, in an operation which demands the attention of men rather than machines. A vast majority of shingles being of random widths, the process of fitting them into the frames, plus a re-inspection and re-grading of each shingle to catch any defects which the sawyer might have overlooked are tasks which only a human eye and a human hand can accomplish.

—VIRGIL G. PETERSON





## HE ALWAYS WANTED TO BE A FIRE MAN

As a boy he loved to hang around the fire house . . . watch the horses . . . run errands for the men. Once they let him slide down the brass pole.

Well, he never got to be a fireman, but what a "no-fire" man he turned out to be, for it was through him that his community learned to use the fire prevention services offered jointly and without charge by 200 capital stock fire insurance companies . . . periodic surveys of towns, help in catching firebugs, etc.

As a member of the parents' association of the high school, he led the adoption of im-

proved fire drills and he urged the local government to have insurance engineers survey the local fire defenses. This resulted in improvement of the water supply and of fire apparatus, and the adoption of a more stringent building code. Thus, he helped to make his community safer from fire.

THE NATIONAL BOARD OF FIRE UNDERWRITERS  
85 John Street, New York      Established 1866  
*Nation-wide organization of 200 capital stock fire insurance companies*



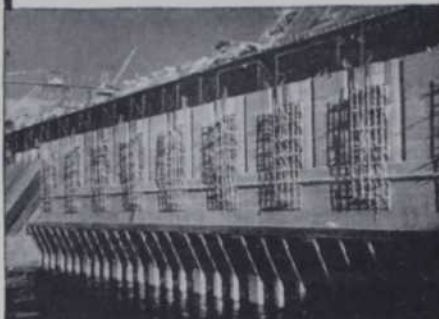
"I'm not surprised to learn that the National Board is 75 years old in a few weeks, because I learned long ago that the fire insurance business was the earliest to join hands in a national way to promote public welfare!"



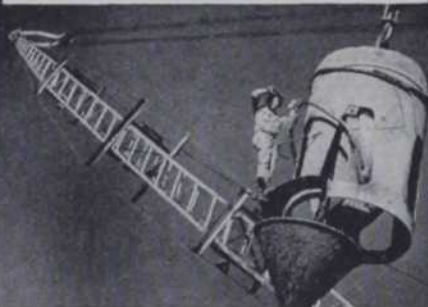
# CAPITAL STOCK COMPANY FIRE INSURANCE



## The biggest thing man ever built!



IT'S FORTY-SIX stories high, fourteen blocks long, and has enough concrete in it to pave two highways from coast to coast. It's Grand Coulee Dam, and the thousands of tons of materials needed were all...



DELIVERED BY the Northern Pacific Railway. To aerial hoppers like this, NP freight trains fed more than 45,000 carloads of cement. Like N. P. Engine No. 5000...



WORLD'S LARGEST steam locomotive... this speed and dependability makes the Northern Pacific Railway a vital part of America's first line of defense.



## Mars Has a Hand in Your Pocket

(Continued from page 28)

economy and individual hard work may, then, be summarized like this:

\$3,000,000,000 possible savings by Government.  
3,000,000,000 net saving by setting unemployed to work.  
8,000,000,000 produced by additional efforts of those now employed.  
\$14,000,000,000 total

It appears then that we can pay a \$20,000,000,000 armament bill and still avoid taking out of our everyday budgets more than \$6,000,000,000. This would mean retrenching to the level prevailing in 1934. This, obviously, calls for no outstanding sacrifice. In fact, we could still live as sumptuously as in the boom days of 1902.

It is important to remember that we have been discussing possibilities, not probabilities. The Government may not economize. The unemployed may remain idle. The rest of us may not work harder. If, however, these three steps toward efficiency are not taken, we must either tighten our belts needlessly or curtail our spending for armaments. If the latter course is followed, the war probably will drag on, its money cost will eventually far exceed \$100,000,000,000, and millions of lives may be needlessly sacrificed.

mainly by borrowing. The general belief is that this method casts the burden upon future generations. This makes the conscientious shudder. Nevertheless, after comparing the evils of this procedure with the inconvenience of going without a new car next spring, we usually decide to let the unborn worry. Therefore we vote for government borrowing.

However, just as we flatter ourselves that everything is comfortably settled, some economist demonstrates that we cannot shift the war burden to unborn generations, simply because we can't fight a present war with future armament.

### Taxes to repay yourself

WHEN a government finances war by borrowing from individuals, it induces John Smith to pay the bill today, and promises that later it will recompensate him. It fails to emphasize that John Smith himself will be taxed to help pay what the Government owes him.

Not infrequently, the Government, to induce John Smith to turn over to it his savings, suggests that part of the money lent can easily be raised by borrowing from a bank. When the bank "lends money" to John Smith, it merely inscribes in his bank book an entry which it calls a deposit. This enables John



With war industries booming, government could cut peacetime expense billions

From this, it appears that, even though we handle the problem of war finance with reasonable intelligence, the Government cannot spend \$20,000,000,000 a year for armament without raising annually, either through new taxes or borrowing, something like \$17,000,000,000. How can this best be done?

Money may be raised by currency inflation, by taxation, by borrowing, or by a combination of these methods. As a rule, governments meet emergencies

Smith to show his patriotism and still buy a new car. This procedure increases demand but provides no new goods. As a result, prices rise. In 1917 and 1918, the slogan "Borrow and buy" floated Liberty Bonds, and also increased the wholesale price average from 173 in April, 1917, to 205 in October, 1918. In the same period, the retail food price index rose from 145 to 181.

When it needs money to pay for war, a Government frequently either borrows



directly from the banks or prints greenbacks. These methods produce almost identical results. They are inflationary, because each increases demand without increasing supply.

As a method of financing war, inflation tends to defeat itself, because rising prices get the citizens as well as the Government into trouble. John Smith soon finds that he ought not to have bought the new car, because, due to higher prices, he now lacks funds to buy shoes for the family and milk for the baby.

Economists almost universally condemn inflation as a method of financing war; yet governments commonly resort to it because, as a device for obtaining funds, it is so subtle that it takes a long time for it to arouse resentment among the people who are actually paying the war costs. The salaried and other fixed income classes only gradually come to realize that, as the days pass, their dollars buy less and less.

When inflation is used to finance war, the financial burden is placed primarily upon persons possessing cash or having holdings expressed in terms of money units as, for example, mortgages, bonds, life insurance policies, and bank deposits. Salaried employees also find it increasingly difficult to meet their bills, because salaries almost never rise as fast as prices. All this hampers production and clearly lessens the chance of winning the war.

Furthermore, a serious business depression is the almost certain aftermath of any war financed by inflation, because, as soon as inflation stops, the artificial demand for goods it creates stops also. When this happens, a fall in the price level, lower profits and widespread unemployment are almost inevitable.

### Higher taxes and bonds, too

FOR these reasons, most authorities on public finance agree that inflation should not be used to finance defense. This means that the Government should raise its funds either by borrowing or taxation. The problem is how to employ these devices without unnecessary inconvenience or resentment.

Since borrowing always raises the problem of how to pay off the debt, economists generally hold that, so far as feasible, a war should be financed on a pay-as-you-go basis. At best, however, taxes are hard to bear. Hence if we hope to raise \$20,000,000,000 a year by taxation, it is desirable that the taxes be levied in such a form as to cause the least possible annoyance to taxpayers. Furthermore, it is imperative that we avoid as much as possible every chance of discouraging enterprise and thus curtailing production. It is also important to encourage thrift because, unless individuals save, they will have no funds to lend.

What tax policies will best meet these requirements? Congress has attempted to give a partial answer to this question by increasing the rate at which corporate income is taxed, and by levying heavily upon "excess profits"—the evident purpose being to see that those who profit by war pay the piper.

Unfortunately, those supporting this

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theory rarely point out that, if war profits are stained with blood, the same is equally true of salaries and wages. All of us who are paid for our work are in the same boat. Furthermore, we certainly ought not to look more askance at profits from war industries than at profits or wages derived from peacetime pursuits. Logically, the reverse ought to be the case, because the men and money cooperating in an effort to speed aid to England are saving the lives of our sons, while the men and money making clothing, cars, and cornets are, for the most part, merely providing us with entertainment or tickling our vanity. The capitalists, the captains of industry, the managers, the technicians, the clerks, the mechanics, and the laborers who are working to destroy totalitarianism richly deserve such monetary rewards as they receive for their services.

However, the real question is not one of sentiment or merit. What we need to consider is whether or not heavier taxation of corporation profits, and especially of "excess profits," will help to win the war promptly.

### Industrial efficiency is foremost

FIRST, let us consider the financial angle. If corporations sell \$15,000,000,000 worth of war materials to the Government each year, their total profits before taxes will scarcely exceed ten per cent, or \$1,500,000,000. If we were to tax away every cent of this, the receipts would not go far toward paying a \$20,000,000,000 war bill. If the tax extended the war a month or two, the nation would be out of pocket more than the receipts from the profits tax. Therefore, the real question is how taxing profits may affect the efficiency of our war effort.

It seems almost certainly to be true that our victory or defeat depends primarily upon the efficiency of our industrial machine. If it can be kept going at top speed, the war period may be relatively short. If it stalls, our very life blood may be sacrificed.

Our industrial mechanism is one of the world's wonders. No European nation has been able to approach us in production per man-hour. The English worker turns out about half as much as the American worker—the German but one-third. The supremacy of our productive system rests upon three things—abundance of natural resources, abundance of capital per worker, and free enterprise. Our vaunted personal freedom is a natural outgrowth of our industrial system.

When the state controls enterprise, liberty disappears. If there is but one employer, one seller of goods, one power in control of education and religion, personal freedom necessarily becomes a phantom. Preservation of our competitive industrial system is, therefore, essential to safeguard our individual liberties as well as to obtain efficient production.

To win the war promptly, we must make our industrial machine operate with maximum efficiency. To accomplish this, we need plenty of motive power. We sometimes overlook the fact that

what keeps our industrial system moving is profits. The more profit, the faster it goes. Take away the profits and it bogs down.

Under our system, the principal function of government is to lay down the rules of the game. The players are rewarded according to their skill in playing under the rules. If we want them to do their best, it is obvious that we must not rob the winners of their gains. Yet this is exactly what we do when we tax profits.

Advocates of excess-profits taxation are, of course, forced to assume that American business men are almost universally so patriotic that they will never think of relaxing their war efforts merely because no monetary rewards are in sight. Yet these advocates of crushing levies on profits are, for the most part, the same persons who loudly assert that American business men are willing to plunge the nation into war to profit by the sale of munitions. What delightful consistency!

The truth is, of course, that although most of our great industrialists are highly patriotic, they, like the rest of us, feel that, in wartime as in peacetime, he who labors is worthy of his hire. Patriotism alone is often sufficient, for a few days at a time, to urge men on to supreme effort, but it takes the lure of dollars to keep them at it day after day the year round.

Let any Thomas who doubts this statement ask himself:

If I were an aircraft manufacturer, and, if I knew that the gross profits of my concern were limited to eight per cent on sales and, if I knew further that, out of these profits, the Government would take one-fourth in income taxes and half of the remainder in excess profit taxes, and if I realized fully that, if I finally received some personal rewards for my efforts, the state and federal Governments would take two-thirds for income taxes, and if I was nagged at and criticized at every turn, and if I was thoroughly tired out, would I spend the afternoon working to speed up production, or would I head for the golf course?

### Wages and profits go together

IT IS worthy of note that those who are so eager to take the profits out of war have never advanced the slogan, "Take the wages out of war." Instead, they demand that, in war as in peace, every man or woman working in a factory be paid time-and-a-half for every hour more than 40 a week. Apparently, they know that the only way to get top production day after day is to pay the worker adequately for extra effort. As a matter of fact, it is just as absurd to levy heavy taxes on excess profits as to levy heavy taxes on the excess earnings of wage workers who put in overtime. When a nation takes either the profits or the wages out of war, it also tends to take the victory out of war.

As a matter of fact, the whole idea of taxing corporations on their net income is illogical. Such taxes have been levied merely because legislators have learned that the average man feels that a tax on a "soulless corporation" costs no one anything. Moreover, corporations, hav-



ing no votes, cannot retaliate at the polls.

Tax rates progressing with size of income are logical enough when applied to individuals. Clearly a dollar means much less to the millionaire than to the scrubwoman. On the other hand, to apply the same principle to the income of corporations is absurd, because the millionaire may own stock in a corporation having low earnings and the scrubwoman's savings may be invested in a corporation having high earnings. If our object is to win the war promptly and to treat everyone fairly, we should not tax corporate incomes or profits. Instead we should tax the stockholders who receive the profits.

### Taxes with the least burden

HOWEVER, if we are to raise \$20,000,000,000 a year, heavy taxes must be levied upon someone. Where is it most logical to place the burden?

Adam Smith long ago noted that the easiest and most convenient time to pay a tax is when one is buying something. If the prospective purchaser does not feel able or willing to pay the tax, he can often avoid it by not buying the goods. This is especially true when the goods are not an immediate necessity. For these reasons, war taxes should fall primarily upon consumption.

However, since taxes are least annoying when they are not called to the taxpayer's attention, and since, in wartime, it is especially desirable that the Government should not irritate its citizens, it is usually wisest for the Government to collect indirect taxes from the producer rather than direct taxes from the consumer. One of the best ways of financing emergencies is a consumption-goods tax levied at the sources of production.

If, for example, the Government were to levy at the sources of supply taxes of say 100 per cent on certain luxuries, the obvious effect would be to raise the prices of these articles, thus curtailing their sales and production. With reduced production in these fields, thousands of men would be released to serve in the army or to help produce war essentials. Furthermore, taxes of no other type come as near to being painless. Luxuries are bought largely for purposes of distinction. The rarer they become, the more distinction they confer upon their owners.

Such taxes on luxuries should be accompanied by taxes at lower rates on semi-luxuries. Both luxury and semi-luxury taxes could be made to yield large revenues without subtracting greatly from the enjoyment of the average man.

A desirable supplement to the indirect luxury taxes would be a direct tax on spending. Such a tax might well take the place of our existing income taxes. As John Stuart Mill long ago pointed out, taxes on saving are bad. They tend to discourage thrift. Since the tax system should not be such as to undermine anyone's health, an amount sufficient to maintain a family in reasonable comfort should be exempt from taxation. Houses and house rent should also be exempt, since nothing would be gained by forcing families to live in cramped

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quarters. After exempting from the year's total money income say \$800 for a man and wife, and \$200 for each child, all further expenditures for consumption goods might well be subject to a stiff progressive tax growing slowly larger as the family expenditures increased. Prof. Irving Fisher has shown that the mechanics of collecting an expenditure tax may be made somewhat simpler than the present procedure for collecting the federal income tax.

The probabilities are that, after the Treasury had raised all the money it could by both indirect and direct taxes on consumption, it would still need fur-

ther funds. These could presumably be obtained by selling savings bonds drawing a moderate rate of interest and payable, after the war, at dates to be determined then by the Government. After the war, if depression tended to develop because of the closing down of wartime industries, the Government could redeem these bonds in cash. The resulting spending would enable peacetime industries to take up the slack. Under such circumstances, the readjustment would be remarkably rapid because of the pent-up demand for luxuries.

By following such a program, our nation would be able to arm at maxi-



## He Cracks Bottlenecks

Charles E. Wilson (left), president of General Electric, devotes most of his time to widening bottlenecks that get stopped while this company is working on its \$350,000,000 defense orders. Latest accomplishment was to cut three months off delivery date for propulsion equipment built for naval vessels. The company has two buildings in Erie, Pa., for manufacture of turbines and gun mounts. Boring mills and lathes were needed before work could start on the turbines, but the Niles Tool Company was unable to promise delivery of tools before October. General Electric found that they could make some of the parts for the needed boring mills and lathes in their gun mount division—made arrangements with Niles to supervise the machining of these parts in General Electric's Erie plant. As parts are completed, they are shipped to Niles for assembly and back to Erie in finished lathes ready for installation in General Electric's turbine building. Result: Bottleneck widened—G. E. will be able to go to work on turbines more than three months earlier than anticipated.

Photo shows Mr. Wilson admitting O.P.M. Chairman Knudsen to research laboratory where efforts are being made to crack more bottlenecks. Sixty per cent of the company's facilities are devoted to defense items. Little more than a year ago the company had 70,000 employees. Today the total is approaching 100,000.



mum speed and minimum cost. Moreover, after victory was achieved, our Government would come out of the war in a strong financial position. Since high governmental demand for goods would have been offset by curtailed demands for other goods, prices, on the average, would not have risen and there would have been no occasion for the Government to fix the prices of nonmonopolized products.

No reason would have existed for an economic dictatorship. Our free institutions would have been preserved. Since the price level had not risen, there would be no reason for it to collapse when hostilities ceased. The thrifty would not have been stripped of their property. In all probability, inventions inspired by war necessity would enable industry to forge ahead with unprecedented vigor.

From what has been said it appears that it is possible for the nation to spend \$20,000,000,000 annually for effective and prompt defense without inflicting undue financial hardship on anyone.

## Cyclists' safety a city concern

**D**EATH TOLL of accidents in which bicyclists figured has stirred many cities and states to consideration of safety measures, has induced a varied crop of regulatory procedures. Compulsory registration is a characteristic device, with inspection a usual part of the license requirement. Some cities include examination and instruction of riders. Several cities have ordinances providing for the impounding of bicycles for violations of regulations. Approximately three out of four riders injured in motor vehicle collisions were violating a traffic regulation, National Safety Council reports. Other safety activities of cities include publication of local bicycle regulations, and bicycle field days with events emphasizing safety and riding skill.

In 11 of the 20 cities included in the Safety Council's report, the license plate is attached by police, resulting in uniformity of location of the plate, permitting sealing of the plate as a precaution against tampering, and assuring owner's respect for the plates. Fewer bicycles are being stolen since licensing began.

In the field of state activities, a 200 mile experimental trail recently was developed and marked near Indianapolis, Ind. Posters were sent to schools by the traffic and safety division of the Arkansas highway commission; state police issued a pamphlet to help promote bicycle safety clubs. A similar pamphlet was issued by the Minnesota safety council. Michigan state police issued a three-page interpretation of state laws governing the riding of bicycles, together with a list of safety rules. Wisconsin's motor vehicle department uses both radio and newspaper releases in promoting bicycle safety.

Organization plans for bicycle safety clubs have been distributed by highway departments in several states, including North Carolina, Illinois and Texas. Some state safety councils sponsor clubs.

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## Indiana Plays Guinea Pig for a War Boom

(Continued from page 22)

returning good for evil. In the winter of 1940, Charlestown was doing as well as could be expected. It hadn't had a depression because it had never had a boom. In the memories of oldsters, there had been a saw-mill and a cheese factory and a couple of cement mills, but these moved in the early 1900's, leaving only a rock quarry.

Even the chain stores, which line Main Street in most Mid-West towns, had passed up Charlestown. An interurban had suspended operation for lack of passengers. The main square, clustered around a red brick school house, could have been used for a set in a movie about the early American way of life.

### Ignored except by W.P.A.

MOST folks lived in the brick houses their great grandfathers had built. The young folks went to work in Louisville.

Charlestown was ignored by the world, save for the ubiquitous W.P.A. In October, 1939, this organization started digging up the streets for a new sewage system. The work went slowly, but nobody complained. Charlestown had managed all right without sewers for more than 100 years.

Then, in January, 1940, a mysterious stranger appeared. He went about asking people how much they would take for their farms. That Sunday he was the major topic in the town's four churches. Maybe he represented the Government. Maybe it was a scheme to get land on which not to grow corn. Maybe Ft. Knox

had become overcrowded with gold and they needed an annex.

The stranger obtained options on 4,500 acres between Charlestown and the Ohio river before he was revealed as E. V. Atwell, representing E. I. du Pont de Nemours and Company, of Wilmington. The site he bought takes in the old Immigration road, opened by George Rogers Clark, and runs down to Charlestown Landing, a busy harbor of river boat days.

The original plans for the plant called for an expenditure of \$25,000,000 and for putting to work the unemployed of the district, which includes Louisville, Jeffersonville and New Albany, in Indiana. But the plans doubled, then tripled. The chief call was for carpenters.

The southern hills of Indiana have seen little building in years. Few young men went in for that trade during the depression. The new crop now being trained has not yet graduated.

The expected "industrial labor" was there, but many men who called themselves carpenters didn't know a try-square from an oil stone. This shortage probably accounts for a heavy sprinkling of gnarled veterans who, it may be supposed, used a feminine prerogative to get under the 50 year age limit. Du Pont advertised for carpenters, engineers and master mechanics in newspapers through the Mid-West.

Requirements for workmen were rigid. Applicants were asked where their sympathies lay in the European war, and whether they were sympathetic to any foreign isms. They were given Wasser-



One place in town sells beer. None sell hard liquor. The mayor and town marshal turned thumbs down on gamblers and honky tonks



mann and heart tests. Their fingerprints were checked through the F.B.I., and their references and past lives investigated. Those who passed were photographed and the picture was made into a button which they must wear constantly when on the job.

Such difficulties in getting and selecting workmen might have bogged down some projects, but du Pont managed to go ahead fast. The workmen's army rose from 5,000 to 18,000 by January, 1941.

Many workers commute from the three nearby cities but thousands descended on Charlestown. The little town arose with more patriotism than house room to meet the crisis. Housewives opened up everything including the best parlor, to roomers, three or four to a room. Prices range from \$4 to \$6 a week. The men folks round the grocery store stove have at last a new topic of conversation.

Some complain because they were forced to move from offices where they paid a few dollars' rent to make room for crazy spenders willing to pay \$100 to run hot dog stands. The bank, which is cashing \$75,000 a week of the approximate \$500,000 pay roll, put up Venetian blinds. The post office put on nine helpers.

### Promoters struck a snag

TRAILER salesmen and trailer lots blossomed in every available back yard. The usual boom-followers arrived. High pressure promoters and shoestring buyers milled around the partly paved streets. Real estate agents opened offices. People arrived to start everything from cheeseburger stands to honky-tonks.

But they struck a snag. One trouble was that many workmen were holding down the first good jobs they'd had in ten years. Du Pont holds high standards. Drunks do not last long at the powder plant. Hence there was no demand for saloons.

A further difficulty lay in the natives themselves. Charlestown turned out not to want a boom. There was little or nothing for sale at any price. The owners figured they'd hang on a while. A cross section of interviews gives varied light on the situation.

Dr. F. C. Pangborn, 71, is a veterinarian and also president of the town board. He opines that the town marshal and he could have made \$50,000 if they had agreed to permit gambling but, "we're not built that way. We told the gamblers to get out and stay out."

Mrs. E. E. Stalker, who runs a stationery store on the main square, says indignantly: "We've lived here peaceable for three generations. I feel like Riley says. 'Le's go a-visitin' back to Griggsby's Station, back where we ust to be so happy and so pore.' All of a sudden the agents came down on us like buzzards round a dead horse, and tried to force us to sell out. We welcome respectable working people and most of these folks coming in are that kind, but we're overrun with riff-raff too, besides these promoters trying to turn us out to profit on us."

A laborer, his pockets bulging with the week's wages, said nostalgically, to



"Now he's kissing her, George"

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a friend: "What a hell of a place to have a boom in. Four churches and only one saloon, and it refined. Well, maybe it's a good thing. I'm sending my dough home to the old woman and she'll save it up."

Joe T. Raaba came from Louisville to open a real estate office, but in five months he did not make a sale. "I have followed booms for 20 years, from California to Florida," says Mr. Raaba, "but this is the darndest boom I ever saw, due to the attitude of the natives. They sit tight and won't even mention a sale price."

There are but two liquor package stores in town, no bar for mixed drinks, and only one place—a combination restaurant and bar—that sells beer.

There is little profiteering anywhere in Charlestown. Parking space for a trailer runs about \$1.50 a week. An old frame building near the powder plant has been turned into a 50 bed bunkhouse, at \$4 a week. The movie show is open only four nights a week, and there is but one pool room.

Real estate developments have bogged down because present workers are transients disinterested in buying. Several pre-fabricated houses form St. Charles Terrace, which offers a good view of some peculiar looking structures like giant beehives on the plant grounds.

### No money for city facilities

FOR several months, Charlestown struggled along with its boom, unaided by the outside world, but it was awakening to the troubles of being rich instead of "so happy and so poor." The town itself was virtually penniless, and taxes paid as of March, 1939, were on the old boomless basis. Finally the town council looked around for help.

Du Pont and the War Department proved disinterested. Their job was to turn out powder, not to transform Charlestown into a garden city.

The W.P.A. responded by placing a double shift on the sewer system. They also answered a demand for sanitary facilities by erecting four obvious "specialist" structures, in prominent places around the main square, to the scandalization of Charlestown womanhood.

Then Indiana took a hand. It was reported that the President would like to have Charlestown made a model city for defense industry boom towns. It must not spread into an ugly monster of gimcrack houses, but must be planned as a neat, small city.

Officials, deputations, committees, advisors descended into the maelstrom, and conferred. The State Board of Health reported that \$250,000 was needed immediately to avert serious hazards to health; that only cooperation between local physicians and du Pont had prevented an epidemic so far in a spot ripe for influenza.

Charlestown became painfully conscious of new-fangled health laws made necessary by congestion. The board of health investigated the 17 trailer camps and 400 trailers. Two offenders were charged with failure to keep the places sanitary.

The town needed a new school house,

new roads and streets, new housing, new everything. There began a spell of wishful thinking about a big, model housing development. Maybe the Government housing authority would erect 1,000 or so homes at Charlestown.

But Charlestown found that the Government is no longer leaping, with idealistic enthusiasm, into building Utopias. Moreover, if the Government did decide to refurbish Charlestown, where would it get builders? The powder plant was having a tough time to get carpenters, without competing with a housing job.

The State retained Henry B. Steeg, former city engineer of Indianapolis, to coordinate defense activities throughout Indiana. Mr. Steeg pronounced the Charlestown sanitary arrangements "terrible," and the problems about the "worst in the nation." But before making plans, he went to Washington, and came back with the pessimistic information that, when "there is no threat to the nation's security, the big powder plant will close up, lock, stock and barrel."

Any large-scale housing development at Charlestown might turn into a ghost town. On Mr. Steeg's recommendation, the Government did decide to build 400 houses in the area. Of these Charlestown gets 100, enough to house a skeleton force at the plant. So ended the housing boom, with a pop.

Ex-governor Townsend of Indiana went to Washington to persuade authorities to designate Charlestown as a national defense area, and the present governor, Henry F. Schriker, is continuing this effort. Thus W.P.A. improvements could be carried on without a contribution from the town. That is Charlestown's only chance at large-scale improvement unless the state legislature votes funds.

In January, 1941, with the area already reeling under the feet of 18,000 workers, along came new munitions workers, next door to Indiana Ordnance. This is a powder bagging plant, subsidiary of Goodyear Tire and Rubber, to cost \$13,899,541 and employ about 4,000 workers. It will, Goodyear officials say, be able to bag more powder than any plant now in existence.

The bagging plant alone would once have put Charlestown on its ears with excitement, but not now.

Madison, Ind., is a river town, 32 miles northeast of Charlestown, with a population of 6,500. Its chief excitement has been fall tobacco sales. For a time Madison looked with envy on Charlestown's boom. Then it got one of its own.

The War Department bought 60,000 acres in three counties north of the town, for an ordnance proving ground, to cost from \$15,000,000 to \$20,000,000. Tanks, guns and bombers will be tested there.

Clearing the tract involved a gigantic moving day for 500 families, two towns, five schools, six churches, several cemeteries, and one millionaire's estate. This place, Old Timbers, was built by the late Alexander Thompson, paper mill owner, an amateur conservationist. He planted 500,000 pine trees and stocked a creek with game fish.

With the enforced moving of so many farmers came another of the problems



incidental to defense. The 50 families who vacated to make way for the Indiana Ordnance Works at Charlestown were comparatively lucky. Their moving took place a year ago, before the southern hills awakened to boom possibilities and inflated land values. They were able to find places to go.

The 500 defense refugee families of Madison found that this winter land-owners in the vicinity have doubled and tripled prices. Few farms are for rent at any price. The exodus into nowhere with cows, horses, chickens and household possessions piled on farm trucks, looked like a flight before an advancing army. The refugees took it philosophically. They had gotten fair prices for their land, and they were better off than farmers in occupied lands abroad. To avoid that, they were doing this.

The proving ground will be permanent. Lieut. Col. De Rosey Cabell, in charge, has asked civic leaders to start an immediate housing program. He says the proving ground will last at least 25 years, and will bring 500 men with their families to Madison. The monthly pay roll will be between \$40,000 and \$45,000.

Madison is about midway of a 106 mile stretch between Louisville and Cincinnati, making it difficult for workmen to commute from these cities. So it must accommodate almost all the temporary construction workers, expected to number 5,000, and later the permanent workers.

Apparently Madison reacted a trifle too joyously to its boom. Even before the boom proper got under way, the military authorities issued a blast against inflated prices and threatened, unless the situation was remedied quickly, to build barracks, provide a commissary and everything else the workers needed right on the proving grounds. Madison promised to be good.

About 80 miles west, across the state from Madison, lies the fourth big defense post of the southern Indiana corn fields. Again "largest in the world" describes the naval ammunition depot, to be built in Martin County, at an estimated cost of \$12,000,000. Here the Navy will turn out star shells.

Barracks for 150 officers and men of the Marine Corps, a sewage disposal plant, water plant and a fire station, will make it virtually a self-contained town.

Half a dozen nearby hamlets are waiting hopefully for a new burst of prosperity, but it has not yet struck. A sign on the engineering office warns: "No Men Wanted." The management advises: "Investigate before you migrate. Heeding this advice will save many Hoosiers from making useless trips."

### Indiana has other new plants

THE ammunition depot in Martin County caused no transplanting of farmers as did the testing ground near Madison. The 35,000 acres now being used for the depot are largely sub-marginal land, bought by the Resettlement Administration in 1934 for a projected recreation center and later turned over to the State as a conservation project.

The \$14,000,000 Kingsbury Ordnance Plant in LaPorte County is the only big

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defense plant in northern Indiana. It will be capable of assembling 170,000 shells a day, using powder shipped from Charlestown and parts provided by private companies.

This plant, too, will close down when defense needs are fulfilled. It will cost \$26,000,000 a year, and require 6,000 employees.

Besides the big munitions plants, orders have poured into Indiana for everything from airplane engines to tanks and dry kilns. The Studebaker Corporation plans to spend part of \$36,799,300 allotted by the Government for new facilities at South Bend.

In Indianapolis, employment went up 25 per cent in 1940 over any past year. There the Navy Department is building a \$6,000,000 plant to make bomb sights. Ft. Benjamin Harrison, seven miles up the pike, is building a \$1,500,000 rush order hospital.

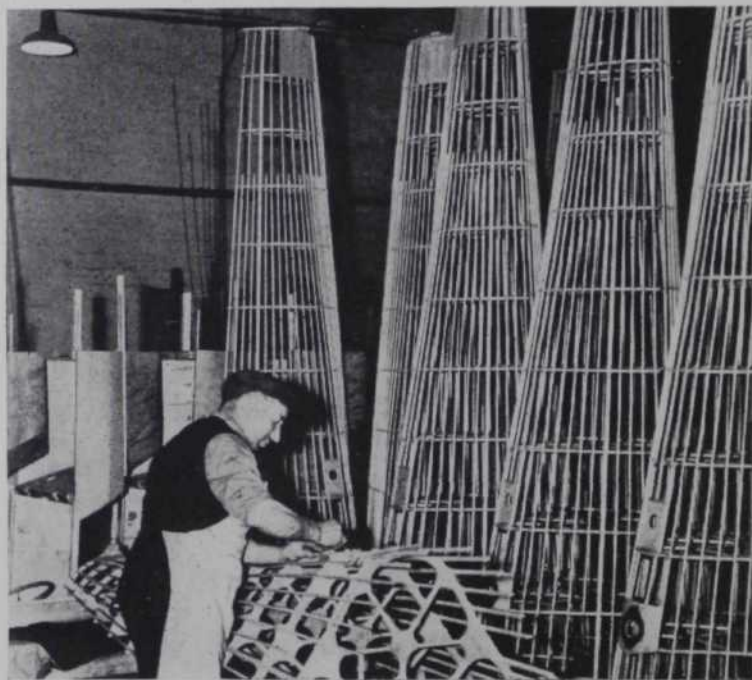
Allison Division of General Motors is making air-cooled plane engines. The Marmon-Herrington Company is turning out fast baby tanks.

In Indianapolis, too, R.C.A. is building

a \$456,000 addition to make sound equipment for the Army; the Eli Lilly Company is making army pills and the Kahn Tailoring Company is making uniforms. But all this is only a business boost in the Hoosier capital.

It is down in the southern hills that defense has brought a boom, and become a sort of test case. Charlestown's smokeless powder plant has proven that it is possible, by combining big business efficiency with army discipline, to overcome terrific handicaps. Charlestown has discovered, too, that the boom accompanying the giant must be treated as temporary. Honky tonks and free spending play no part in this type of boom.

Some permanent improvements will result for Charlestown, as well as for other small towns of Indiana affected by defense prosperity. They will get new schools, roads, streets, sewage systems, a certain amount of new building, not as fast as needed, perhaps, but eventually and through either state or federal help. Defense for southern Indiana has rung down a curtain on a slow, bucolic life and has brought modernism to the hills.



## Wooden Airplanes Again?

Wood construction for airplanes is no lost art if this photo taken in a West England "Hurricane" factory is any criterion. Shortage of metal and metal workers partially explains the return to wood for fighter planes, but new types of waterproof, resin-bonded plywood that can be used for wing, fuselage and tail covering are no mean substitute. In addition to their strength and resistance to shrapnel damage, the new plywoods speed up production by eliminating slow riveting processes.





A committee of judges, persons well-known to the office force, operates for a year. Contestants draw the one question they are to answer

## Fun Quiz Improves Morale

**W**ELL informed employees are a public relations asset. The Lincoln National Life Insurance Company, of Fort Wayne, Ind., with an 85 per cent woman clerical force, has developed an educational plan whereby knowledge of basic principles can be imparted to employees through entertaining competition.

The plan involves the use of a quiz contest with prizes for proper answers. Each month, ten educational questions with answers are distributed to all members of the company's staff. The questions concern both their own company operations and the entire business of life insurance.

After ten questions and answers are distributed, a lapse of from five to ten days is allowed for employees to study the answers. When lottery day is decided upon by the committee, an individual from the office is selected at random to do the drawing. Photographs covering all lotteries are a matter of record. Employees whose names are selected are asked to report to the Quiz Committee. The quiz is not conducted before a mass meeting of the employees and persons whose names are drawn select by lottery the one question they are to answer. The committee awards partial prizes for partial answers, depending upon the amount of study evidenced by the answers given. There are no penalties for failure to answer.

No employee is forced to participate. Any individual whose name is drawn by lottery may decline the opportunity. Should this happen, an alternate name is drawn. Although a new set of questions is used each month, the old questions are still active inasmuch as at stated intervals a sweepstakes contest is held which uses the old questions.—FRED L. FISHER



An employee draws names of contestants who are to take part in quiz





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## Drawing Charts in the Dark

(Continued from page 25)

as many cars every year as they bought in 1929 or 1937. Neither the peak nor the bottom of economic activity can be taken as the norm.

If, in some year, every poor person received a gift of \$500, these people might get a great many sets of false teeth. But, if the gift were repeated the next year, they would not get so many sets of false teeth, because they would already be supplied.

The fundamental fallacy in "Patterns" is the assumption that the kind and number of articles bought when the national income temporarily reaches a high figure would continue if the national income remained at the high figure. The result is that the table in "Patterns" which shows what would be produced at the income level of \$100,000,000,000 overestimates the production of durable goods and underestimates the output of perishable goods and services.

### An unbalanced consumption

ACCORDING to "Patterns," if consumer income increased to \$100,000,000,000 iron and steel consumption would increase 242 per cent, copper consumption would increase 429 per cent, passenger car production would increase 200 per cent, construction would increase 430 per cent, while recreation and amusement would increase only 66 per cent, the number of domestic servants would increase by only 54 per cent, butter and cheese consumption would increase by only 47 per cent, the number of professional persons would be increased by only 12 per cent and the number of school teachers would increase by only eight per cent.

In other words, if the nation became fabulously rich and prosperous, we would cover the landscape with houses and articles made of iron, copper, lead and zinc, and only slightly increase the amount spent for medical service, domestic help, amusements, education, and better food. Of course you and I know that these conclusions are not consistent, either with human desire or social progress.

Another feature of "Patterns" which is unusual is that it indicates that a rise in national income will help the rich more than the poor. According to "Patterns," when the national income rises to \$100,000,000,000, the number of people employed will rise to 60,100,000. If these persons receive on an average \$1,200 a year for their work, salaries and wages would rise to \$72,100,000,000. Hence dividends, rent and interest would rise to \$27,900,000,000. Thus, while salaries and wages would rise by only about 40 per cent, the returns on capital would increase by about 249 per cent! Such a development would illustrate the Biblical saying: "To him that hath shall be given."

I would be unfair to the authors of "Patterns" if I did not tell you that they themselves are somewhat skeptical of the conclusions reached in the report. On

page 1, we read:

The materials contained in this report should be used with great care, since they are of an initial and experimental character. . . . Many of these analyses probably have a high degree of validity, but some are far from reliable either because of inadequate data or faulty analysis. . . . In the appraisal of the tentative patterns of resource use which are presented in this report, it should be clearly recognized that they do not represent operating programs. They lack the necessary precision and reliability for this purpose.

And on page 2, we read:

The patterns developed in this report do not represent forecasts of what is going to happen in the future, they only attempt to set forth various combinations of happenings which are consistent with each other.

In regard to the consistency of these various combinations of happenings, I shall leave it up to my readers to judge. On page 2, the patterns are referred to as crude.

On p. 28 we learn that, as national income advances to \$100,000,000,000, employment advances from 39,400,000, to 60,100,000, or a 100 per cent gain in national income results from about a 50 per cent gain in employment. However, the report indicates that employment in agriculture, education, the professions, and in the federal, state and local governments would increase by less than two per cent, while employment in the remainder of the economy would increase by more than 85 per cent. I cannot help but doubt the validity of these conclusions.

### Maybe farmers will work harder

AS INCOME advances to \$100,000,000,000, we are to consume 37 per cent more butter, cheese, condensed milk, and ice cream, 27 per cent more meat, 373 per cent more leather, 108 per cent more cotton textiles, 110 per cent more woolen and worsted goods and 52 per cent more tobacco. This calls for an increase in cattle, hogs, sheep, cotton and tobacco, and it would seem to indicate an increase of at least 40 per cent in farm output. To get this increase, we would have to cultivate poorer land and cultivate the rich land more intensively.

Yet, according to "Patterns," this is to be accomplished with no increase in the full time employment of farmers. I do not understand this. And does experience teach that government jobs will not increase? As we become more prosperous, can we assume that we will have no more teachers and only six per cent more in the professions? Then again is it not reasonable to assume that those who are at present unemployed are on the average less skilled, less ambitious, in poorer physical condition, and in poorer locations than those who are employed?

We cannot expect that 10,000,000 of the unemployed, when put to work, will turn out as much product as 10,000,000 who are now employed. Due to these considerations, it seems to me that the re-



port underestimates employment at the \$10,000,000,000 level by perhaps as much as 4,000,000. We must, therefore, challenge the conclusion that full employment would produce a national income of \$88,000,000,000.

It is more likely that full employment would result in a national income of around \$80,000,000,000 and, since we must allow for sickness, time lost in changing jobs, and other factors, perhaps the maximum income we can obtain, with hours limited by the wages and hours law, is around \$72,000,000,000 to \$75,000,000,000. If my analysis is correct, what becomes of the theory that we can boost the national income to \$90,000,000,000 to \$100,000,000,000 or even to \$80,000,000,000 and get enough revenue from existing tax laws to meet the expenditures of the federal Government?

### Enterprise must be more free

BUT, will even a \$75,000,000,000 income be possible until business men and investors have confidence that the system of free enterprise will not be destroyed? We have come to the end of the trail. We have studied some of the complicated formulas and the multitudinous charts assembled to determine the national income that would put all of our unemployed to work only to find that "Patterns" gives the wrong answer. The economic assumptions and clever correlations end in statistical frustration.

The annual output of automobiles, iron and steel, copper, etc., is referred to in "Patterns" as consumption. It seems to me that a better term would be production. When an automobile comes off the assembly line it has not been consumed—it has been produced. In the first edition of the report, the aggregate income of individuals was called national income; in the later edition this was called consumer income. Why are individuals referred to as consumers? Could they not with equal propriety be called pedestrians? And could we not refer to the aggregate income of individuals as pedestrian income?

Everyone knows that the employment in shoe factories depends on the number of shoes produced, that the consumption of gasoline depends on the number of automobiles to be propelled and that the amount of seed corn a farmer uses depends on the number of acres he plants. We know now that these simple relations are economic continuities.

In regard to national resources, we learn that the national aim is the fullest use of resources or the maximum use of resources. That means, I suppose, that we should pump the oil out of the ground and cut down the trees, and mine the iron and copper ore at a feverish rate. But then we have plans for conserving the resources, saving the forests, reducing oil output, conserving the soil. The two concepts are antagonistic and collide with each other head on. It seems to me that neither of these slogans has much intellectual content.

### The people decide for themselves

SUPPOSE that, in 1900, the government economists had issued a report similar

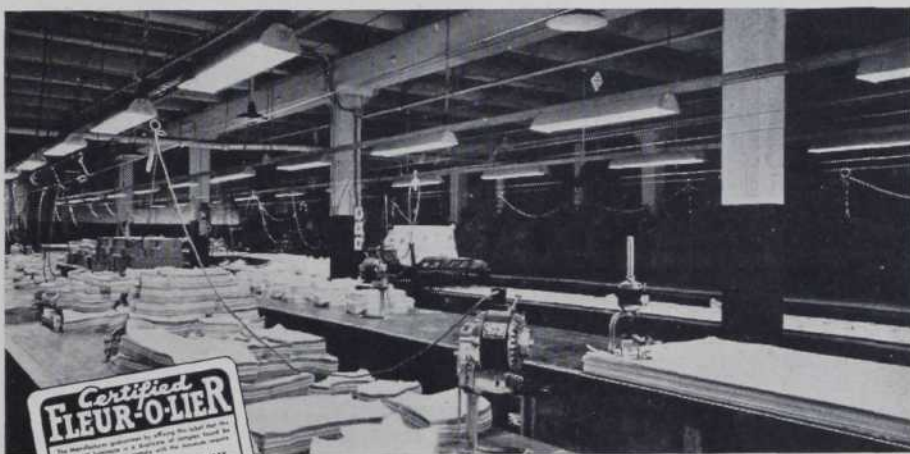
to "Patterns," based on the correlation of data for the years 1885 to 1900. Would such a study have indicated the growth in the use of automobiles, and the resulting development of the petroleum industry? Would such a report have indicated the growing use of farm tractors, the decline in the horse population, and the resulting decline in the demand for oats and hay? Would such a report have forecast the developments in aviation and radio? Would it have given us advance information on the Great War with all the economic dislocations which resulted? I do not believe the economists of 40 years ago were able to see clearly into the future. I do not believe that, in 1941, we can do what could not have been done in 1900.

We cannot project into the future economic trends based on the records of the past and say with any assurance what people will make and buy in some future year when a certain hypothetical value is reached for the national income. Nor, under our free economy, is it necessary to forecast the direction of economic activity in future years.

Production automatically flows into those goods and services which people vote for when they spend their dollars in the market place.

It is only a planned economy, an economic autocracy, a totalitarian state which has any need for a chart to show how many people will work in each industry and how much of each product or service shall be produced.

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## Fireman! Put Out That Bomb!

(Continued from page 75)

Obviously, bombing Springfield or Birmingham or Los Angeles or Tacoma from any possible base is going to be less simple than a 30-mile flight across the English Channel. The longer the flight, the more gas must be carried; the more gas, the fewer bombs. Yet the fact remains that the British have done pretty well for themselves as far away as Naples and Berlin!

The point is that, whether they come down in hundreds or in thousands, incendiary bombs present a vicious problem aggravated by the fact that one plane can easily carry enough small bombs to start from 75 to 200 fires, even allowing a high ratio of misses. The most effective is the so-called electron bomb: a casing of magnesium alloy loaded with thermite. In a test here, a two-pound bomb was placed on a two-inch metal sheet above a pail of water and detonated. It not only burned through the metal sheet but through the pail of water and the floor on which it was standing!

In practice the thermite ignites upon impact, generating a temperature of more than 4,500 degrees which sets fire to the magnesium shell itself. During the "thermite reaction" of about one minute, molten magnesium is forcibly thrown 50 feet in all directions, scattering the fire. For some 15 minutes after the thermite has been consumed, the metal shell or casing continues to burn at a temperature of about 2,300 degrees.

Since the magnesium supplies its own oxygen, no fire extinguisher chemical will affect it and water actually stimulates it by providing more oxygen. Indeed, if imprudently applied, water complicates matters by causing the bomb to spatter white-hot metal over distances of 15 to 20 feet.

Nevertheless, water is effectively used on electron bombs by those who apply it gently rather than in a heavy, solid stream. The spray or "fog nozzles" familiar to American firemen would be ideal, and the now-famous English stirrup pump is designed very much along



Thousands of London fire brigade and auxiliary members demonstrate fire-fighting equipment after wartime experience



this line. Directed from at least 30 feet away, this mist shortens the life of the bomb, without agitating it, by accelerating its burning. At the same time, the water wets down surrounding areas and checks the spread of the fire.

In England, long-handled "snuffers" of wire mesh covered with asbestos fiber are also being used effectively, as are dry sand or other inert materials. In this country, of course, we have had much experience with magnesium fires in certain industries and have found powdered talc to be the best extinguishing agent. This, however, would not be feasible for public use.

The destructive power of these bombs in large quantities raises the natural question: how are we fixed right now to meet this potential threat?

The immediate answer is that we are in a far better position than normal England was to meet it in terms of trained man power and equipment—but in a somewhat worse position as regards the conflagration hazard.

New York City, for example, has 9,500 firemen in about 370 stations compared to peacetime London's 2,000. And the average American city has nine firemen per 100,000 population in contrast to only three in Europe, with the ratio of equipment to men even more in our favor.

As against that, however, we have a greater conflagration hazard because of our frame construction and a high incidence of "quick burners" in the high hazard district of virtually every city. Consequently, no American city could afford a fire department big enough to stop a peacetime conflagration once it got under way. Chicago, as a case in point, has an excellent department, yet, when the stock yards got going several years ago, some 30 nearby towns had to send apparatus.

At present, man power is the most urgent need of our fire departments, even for peacetime operations. In the typical city today the average company is running one to two men under a normal crew; smaller cities are invariably two to three men shy. Most of the largest cities are fairly well fixed, but there are exceptions, some of which are short ten full companies.

The Underwriters' minimum requirements call for five men per shift per company in residential areas; seven men in high value districts. The rule-of-thumb for apparatus requirements varies with the population. For cities of from 50,000 to 200,000, for example, the customary formula is "multiply the population in thousands by .07 and add 3.4" to arrive at the minimum number of pumpers needed. Thus, a city of 100,000 should normally have ten engine companies. The ladder truck ratio is one to two to one to three, depending upon conditions.

From this it is simple to estimate roughly your community's present fire fighting status. It is well to remember, however, that, for emergencies, the apparatus in normal service today could easily accommodate two or three times the present personnel. A typical 750-gallon pumper usually rides from four to six men but, delivering three good hand

lines, it could keep nine men busy with them alone.

### More men will be needed

THE personnel problem in a big fire is well illustrated by the Cunard Pier fire in New York which brought out a fifth alarm assignment of about 300 men and nearly 50 pieces of apparatus. No additional apparatus was summoned, but 24 hours later 150 extra men had to be "special called." There were, incidentally, more than 200 first aid cases—mostly eyes. This outbreak, which consumed 75,000,000 gallons of water, might well represent only one of a series of simultaneous waterfront fires in wartime, piers being a favored objective on

the one hand and bad fire risks on the other.

Each community must also consider how ruptured water mains would affect its water supply. Tests in New York, for example, show that fire-boats can pump water a mile across the city from both rivers, and it is planned to supplement this by pressing into service some 250 tug boats which can pump on a lesser scale. This, in turn, implies a sufficient quantity of hose. That is going to be a "bottleneck" in the average city. The typical engine company today carries 1,000 feet with another 1,000 in reserve in the station. In wartime, this footage would be woefully inadequate.

Augmenting hose stocks in a hurry is going to be a grave problem, as is the ex-



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pansion of apparatus. In December, *Fire Engineering* reported that U. S. Army orders for nearly 400 pieces of apparatus had manufacturers in this specialized field working at full capacity. At that time the Navy had not yet filed orders for its rapidly increasing shore bases and municipal orders were few. Yet deliveries of hose and ladder trucks for cities were even then on a four-month basis. An eleventh-hour rush for equipment might mean chaos.

This sketchy review of the elements of wartime fire fighting demonstrates the genuine need for community study along these lines. It has already been undertaken in numerous cities. Los Angeles started 17 years ago. It was thinking about earthquakes rather than aerial bombardment, but the pattern of this Major Disaster Council—a working group involving 30,000 trained volun-

teers—is so comprehensive and smooth that it has been adopted by the International Association of Fire Chiefs as the model for all others. Civic minded citizens interested in such foresight can get a 50-page outline of this program for 15 cents, from the I.A.F.C. headquarters, 24 West Fortieth Street, New York City.

Such surveys are not completed over the week-end. They demand hard work and intelligent analysis. New York City's took 18 months and is now in the hands of a large corps of experts who are organizing and codifying the material.

The situations to be met are varied and vexing. What are we going to do for electric power if a main station is hit? If it did nothing else, that contingency in business hours in Chicago or New York would trap 250,000 persons in elevators!



DE SIMONE

## Bank on the Run!

**Commuters Get Banking Service in Depot:** Ernest H. Watson, president of the First National Bank of New Rochelle, N. Y., had an idea that commuters to Manhattan would appreciate the opportunity to do their banking before the 8:15 carted them off to work. Railroad company offered him window and space occupied by shoe-shine stand next to newsstand nook in depot. Formal opening was held Wednesday, March 26, with Mayor Church cutting tape and breakfast for invited guests in the restaurant. The only known bank in a depot, this one includes a 1,210 pound safe, burglar alarm system and two tellers on duty until after the 8:12 rush, when one will keep open house until noon.



How are we going to clear the streets of debris to get apparatus through? What about drinking water and sewage?

Could your city's streets handle a sudden exodus of people from business buildings? In New York, for example, Nassau Street can accommodate at one time only 69 per cent of the business-hour occupants of its buildings; New Street can take only 44 per cent; Exchange Place, 37 per cent, and so on. What steps will be necessary to persuade people in such congested areas to stay in the buildings during a raid?

Who is going to handle rescue work in an emergency—demolition of unsafe structures—first aid? In New Jersey alone more than 200 volunteer first aid squads are already working along a general plan which has spread to Pennsylvania, Maryland, Virginia, Rhode Island, and a few other states.

What about emergency shelter? Suppose you had to suddenly house 100,000 refugees in your community—can you think of a likely place for a camp which would have adequate sanitary facilities, just to mention one item?

What about bomb shelters? Most New Yorkers would automatically think of the subways. But New York's (and other American) subways are unfit for bomb refuges because they are too close to the surface. Skyscrapers would be much better on any but the top five stories or in wings five stories below set-back roofs.

### Emergency communications

HOW can city-wide signal and alarm systems be maintained in the absence of public power? In the Long Beach earthquake, hundreds of Marines were posted on street corners to wigwag messages until the amateur radio "hams" could get their self-powered, short wave radio system set up. For several years, the American Radio Relay League has trained more than 1,500 groups and clubs in its Amateur Emergency Corps for just such work. Are there any of these in your city?

To many complacent souls, such forehandedness is merely borrowing trouble. To those who read current history, it is the finest antidote to the best "secret weapon" yet displayed in this war—public panic breeds best in smug unpreparedness.

Every community undertaking one of these emergency surveys will face other thorny questions—for instance, "Where is the money coming from for emergency equipment, training and personnel?"

In England, the British Government stands the heavy cost of wartime fire fighting, providing the extra men and equipment. Even at the modest wage of \$13 a week, the A.F.S. pay roll runs about \$16,000,000 a month.

In this country the War Department so far maintains that fire protection is purely a municipal problem—a theory quite outmoded by current events.

The matter of trained men is equally serious. If wartime fire fighters aren't at least partially trained, they can do more harm than good. New York City is relying on some 3,000 retired firemen to meet this need; Boston is assigning

auxiliaries to the departmental school and to regular companies. Large cities everywhere can adopt both ideas and smaller communities will probably have to send at least key men to the numerous firemen's training schools conducted by state colleges.

Meanwhile, the Selective Service Act complicates the problem by refusing to exempt firemen as a class. It does not make sense to draft a trained fireman to be a rookie soldier, replacing him in the fire service with another rookie fireman. This will have to be ironed out.

One suggestion that has already been

made unofficially in fire circles is that we ought to utilize the draftees in this field. There are 16,000,000 registered, of whom only 900,000 will be called up in any year. Why not add 50,000 to that annual number and detail them, under their own Army officers, to fire schools so that we shall at least have a good nucleus of key men who, in turn, can train others?

Truly, there is an enormous field for thought in the wartime fire problem. And if we are to benefit by the experience of England, the paramount lesson is: *Get busy well in advance.* This is a fireman's war!



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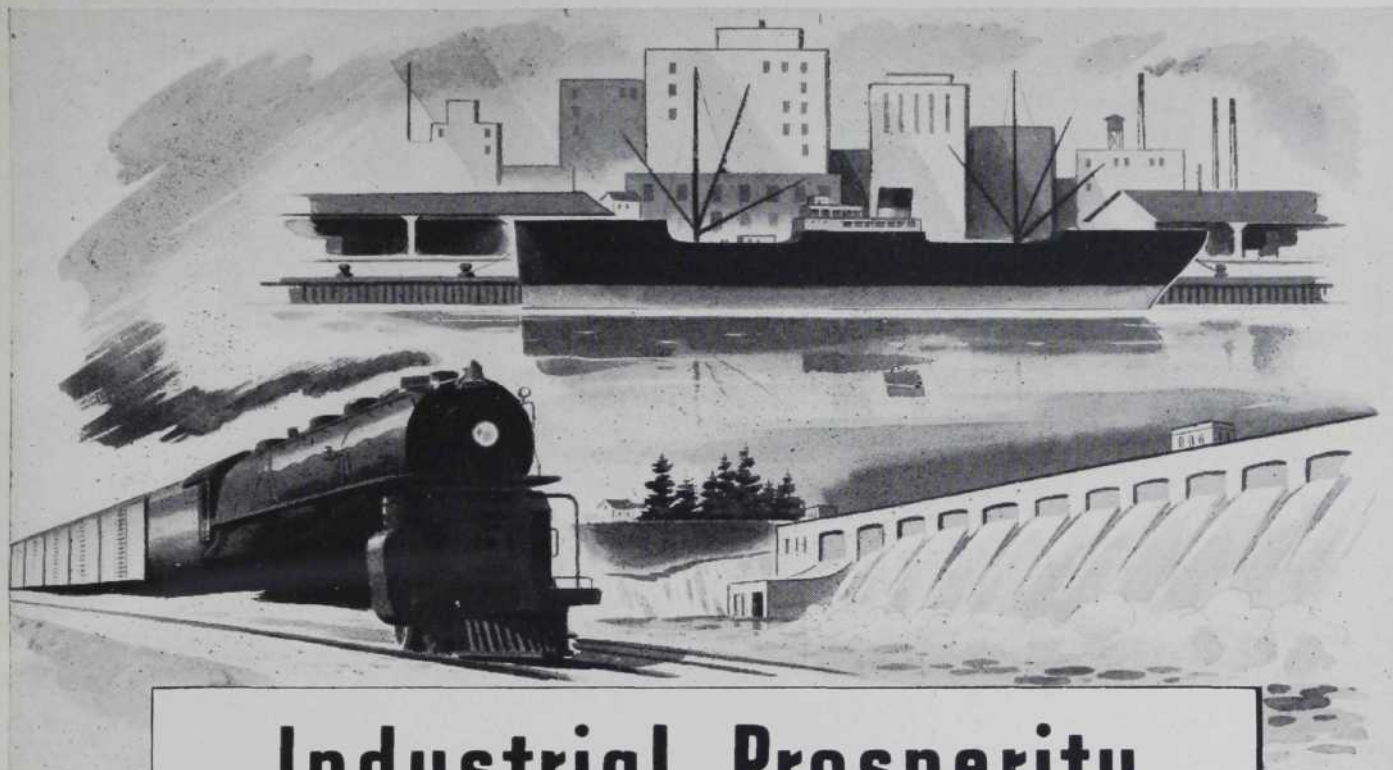
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